ORDER NO. MD0503077C3

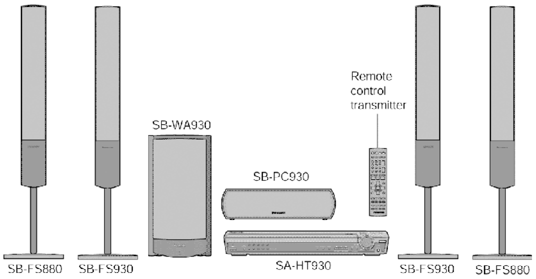
Service Manual

DVD Home Theater Sound System

SA-HT930GC / SA-HT930GS

Colour

(S).......................Silver Type


SB-WA930
SB-PC930
Remote control transmitter
SB-FS880
SB-FS930
SA-HT930
SB-FS930
SB-FS880

SPECIFICATIONS

Specifications

● General

Power Source:	AC 110V/127V/220-230V/ 240V, 50/60Hz
Power consumption:	25 W
Dimensions (W×H×D):	430×68×423 mm
Mass:	4 kg

● Amplifier section

RMS Output Power: Dolby Digital Mode	
● Total RMS Dolby Digital mode Power:	1000 W
At 1kHz and total harmonic of 10%	
● Front:	170 W/ Channel (6 Ω)
● Center:	260 W/ Channel (4 Ω)
● Surround:	70 W/ Channel (4 Ω)
At 100Hz and total harmonic of 10%	
● Active subwoofers:	260 W/ Channel (4 Ω)
DIN Output Power: Dolby Digital Mode:	
● Total DIN Dolby Digital mode Power:	680 W
At 1kHz and total harmonic of 1%	
● Front:	145 W/ Channel (6 Ω)
● Center:	150 W/ Channel (4 Ω)
● Surround:	45 W/ Channel (4 Ω)
At 100Hz and total harmonic of 1%	
● Subwoofer:	150 W/ Channel (4 Ω)

● FM tuner section

Frequency Range:	87.5-108.0MHz (50kHz in step)
Sensitivity:	2.5 μ V (IHF)
S/N 26dB	2.2 μ V
Antenna Terminal:	75 Ω (non balance)

● AM tuner section

Frequency Range:	522-1629kHz (9kHz in step) 520-1630kHz (10kHz in step)
AM Sensitivity S/N 20dB at 999kHz:	560 μ V/m

● Phone Jack:

Terminal:	Stereo 3.5 mm jack

● Disc section

Discs played [8 cm or 12 cm]:

(1) DVD-RAM (DVD-VR compatible, JPEG formatted discs)
(2) DVD-Audio
(3) DVD-Video
(4) DVD-R, DVD-RW (DVD-Video compatible)
    +R, +RW (Video compatible)
(5) CD-Audio (CD-DA)
(6) Video CD
(7) SVCD (Conforming to IEC62107)

(8) CD-R/CD-RW (CD-DA, Video-CD, SVCD, MP3, WMA, JPEG formatted discs)

(9) MP3/WMA

- **Compatible compression rate:**
  - **MP3: between 32 kbps and 320 kbps**
  - **WMA: between 48 kbps and 320 kbps**
- **Maximum number of recognizable audio and picture contents and groups:**
  - **4000 audio and picture contents and 400 groups**

(10) JPEG

- **Exif Ver 2.1 JPEG Baseline files**
- **Picture resolution: between 320 x 240 and 6144 x 4096 pixels (sub sampling is 4:2:2 or 4:2:0)**
- **Maximum number of recognizable audio and picture contents and groups:**
  - **4000 audio and picture contents and 400 groups**

(11) HighMAT Level 2 (Audio and Image)

Pick up:

Wavelength:
- **CD: 785nm**
- **DVD: 662nm**

Laser power: CLASS 2/ CLASS 3a

Audio output (DISC):

Number of channels: 5.1 ch (FL, FR, C, SL, SR, SW)

Audio performance:

Frequency response:
DVD (linear audio): 4 Hz-22 kHz (48 kHz sampling)
4 Hz-44 kHz (96 kHz sampling)
DVD-Audio: 4 Hz-88 kHz (192 kHz sampling)
CD-Audio: 4 Hz-20 kHz

S/N ratio:
CD-Audio: 95 dB

Dynamic range:
DVD (linear audio): 95 dB
CD-Audio: 93 dB

Total harmonic distortion:
CD-Audio: 0.005 %

- **Video section**

Video system:
Signal system: PAL 625/50, PAL 525/60, NTSC

Composite video output:
Output level: 1 Vp-p (75 Ω)
Terminal: Pin jack (1 system)

S-video output:
Y output level: 1 Vp-p (75 Ω)
C output level: NTSC; 0.286 Vp-p (75 Ω)

PAL; 0.3 Vp-p (75 Ω)

Terminal: S terminal (1 system)

Component video output:

NTSC: 525(480)P/525(480)I:

PAL: 625(576)P/625(576)I:

Y output level: 1 Vp-p (75 Ω)

PB output level: 0.7 Vp-p (75 Ω)

PR output level: 0.7 Vp-p (75 Ω)

Terminal: Pin jack (Y: green, PB: blue, PR: red) (1 system)

Power consumption in standby mode: approx 0.9W

Note:

1. Specifications are subject to change without notice.
   Mass and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.

Solder:

This model uses lead free solder (PbF).

system	SC-HT930GC	SC-HT930GS
Main unit	**SA-HT930GC**	**SA-HT930GS**
Front speakers	SB-FS930P	SB-FS930P
Center speaker	SB-PC930P	SB-PC930P
Surround speakers	SB-FS880EB	SB-FS880EB
Active subwoofer	SB-WA930GC	SB-WA930GC

MPEG Layer-3 audio decoding technology licensed from Fraunhofer IIS and Thomson multimedia.

Windows Media, and the Windows logo are trademarks, or registered trademarks of Microsoft Corporation in the United States and/ or other countries.
WMA is a compression format developed by Microsoft Corporation. It achieves the same sound quality as MP3 with a file size that is smaller than that of MP3.

Designed for Windows Media™

HIGH MAT AUDIO•IMAGE

HighMAT and the HighMAT logo are either trademarks or registered trademarks of Microsoft Corporation in the United States and/ or other countries.

■ **Built-in decoders**

You can play discs with these symbols.

DOLBY DIGITAL

DIGITAL dts SURROUND

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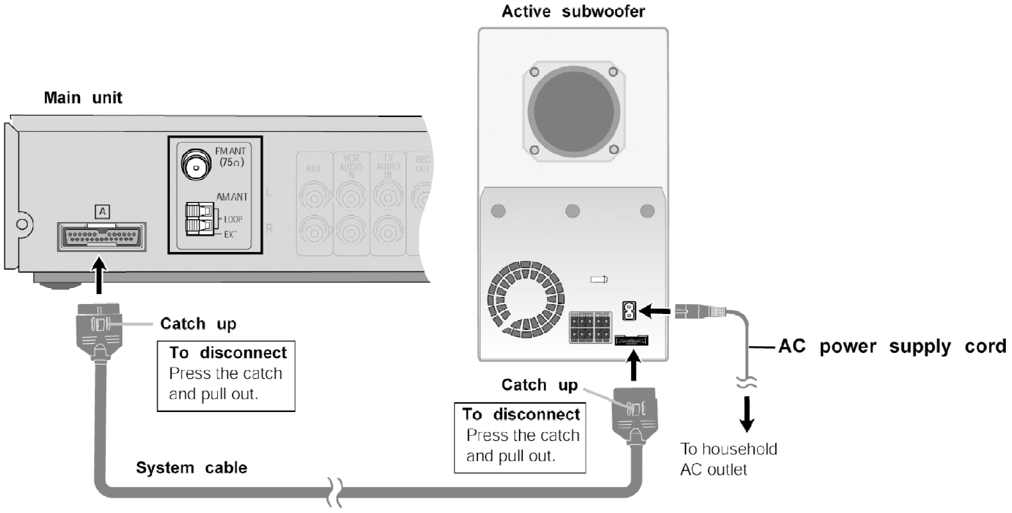
⚠ **WARNING**
This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

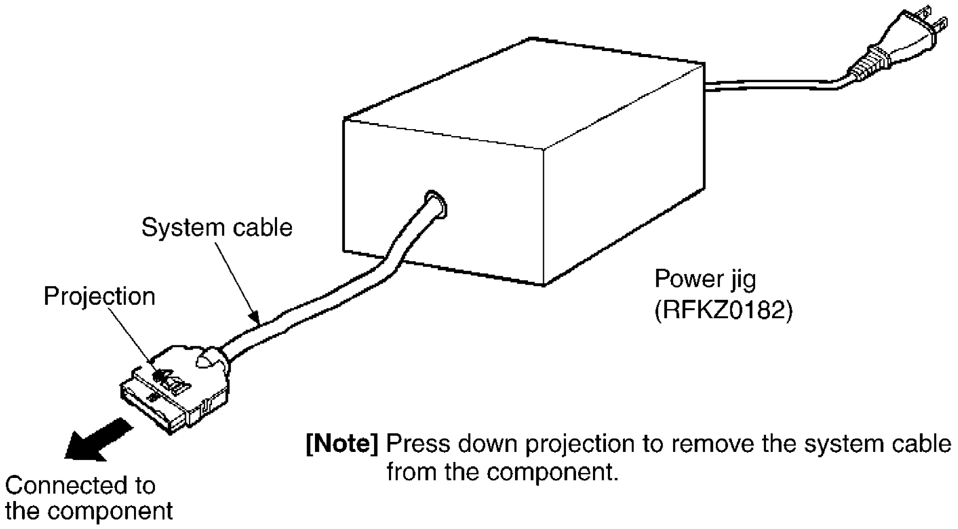
1. Use of Active Subwoofer

1.1. Checking Player when Active Subwoofer is not used

1. This unit uses the active subwoofer to supply the power of the component, and the active subwoofer should be connected to the component to check operational conditions of the component.


Active subwoofer
Main unit
FM ANT (75Ω)
AM ANT
LOOP
EXT
AUX
VCR AUDIO IN
TV AUDIO IN
REC OUT
A
Catch up
To disconnect
Press the catch and pull out.
Catch up
To disconnect
Press the catch and pull out.
AC power supply cord
To household AC outlet
System cable

2. If the active subwoofer is not available due to repair of the unit, use the following equipment.


System cable
Projection
Power jig
(RFKZ0182)
Connected to
the component

[Note] Press down projection to remove the system cable from the component.

Jig product number: RFKZ0182 (110V, 127V, 220V, 230V-240V for overseas domestic use)

2. Safety Precautions

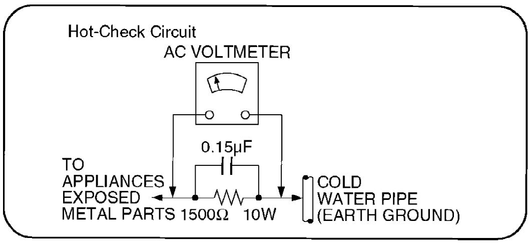
2.1. GENERAL GUIDELINES

1. **When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.**
2. **After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.**
3. **After servicing, carry out the following leakage current checks to prevent the customer from being exposed to shock hazards.**

2.1.1. LEAKAGE CURRENT COLD CHECK

1. **Unplug the AC cord and connect a jumper between the two prongs on the plug.**
2. **Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1M Ω and 5.2M Ω . / When the exposed metal does not have a return path to the chassis, the reading must be ∞.**

Figure 1



2.1.2. LEAKAGE CURRENT HOT CHECK (See Figure 1 .)

1. **Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.**

2. **Connect a 1.5kΩ, 10 watts resistor, in parallel with a 0.15 μF capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.**
3. **Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.**
4. **Check each exposed metallic part, and measure the voltage at each point.**
5. **Reverse the AC plug in the AC outlet and repeat each of the above measurements.**
6. **The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.**

3. Prevention of Electro Static Discharge (ESD) to Electrostatically Sensitive (ES) Devices

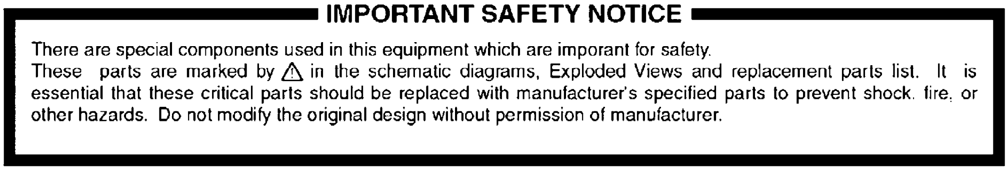
Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. **Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.**
2. **After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.**
3. **Use only a grounded-tip soldering iron to solder or unsolder ES devices.**

4. **Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.**
5. **Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.**
6. **Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).**
7. **Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.**

   Caution

   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. **Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).**



IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are imporant for safety.
These parts are marked by ⚠ in the schematic diagrams, Exploded Views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

4. Before Repair and Adjustment (Using Active Subwoofer)

Disconnect AC power, discharge Power Supply Capacitors C546,C547,C549 through a 10 Ω , 10 W resistor to ground.
DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices.
After repairs are completed, restore power gradually using a variac, to avoid overcurrent.
Current consumption at AC 230 V, 50 Hz in NO SIGNAL mode should be ~ 1000 mA.

5. Protection Circuitry

The protection circuitry may have operated if either of the following conditions are noticed:

- No sound is heard when the power is turned on.

- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.

If this occurs, follow the procedure outlines below:

1. Turn off the power.

2. Determine the cause of the problem and correct it.

3. Turn on the power once again after one minute.

Note:

When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

6. Precaution of Laser Diode

CAUTION :

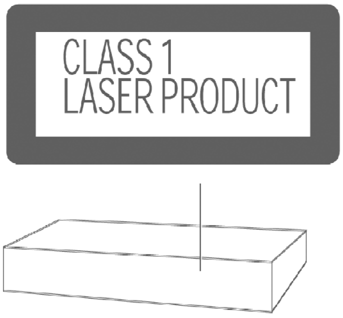
This product utilizes a laser. Invisible laser radiation is emitted from the optical pick up lens when the unit is turned on.

Wavelength : 662nm(DVD)/785nm(VCD/CD)

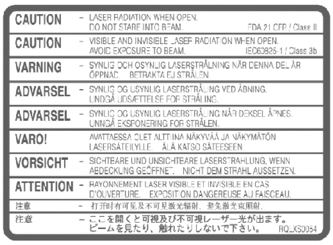
Maximum output radiation power from pick up : 100 μ W/VDE

Laser radiation from pick up unit is safety level, but be sure the followings:

1. **Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.**
2. **Do not adjust the variable resistor on the pick up unit. It was already adjusted.**
3. **Do not look at the focus lens using optical instruments.**
4. **Recommend not to look at pick up lens for a long time.**



(Back of product)



CAUTION – LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM. FDA 21 CFR / Class II

CAUTION – VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM. IEC60825-1 / Class 3b

VARNING – SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRAKTA EJ STRÅLEN.

ADVARSEL – SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UDSÆTTELSE FOR STRÅLING.

ADVARSEL – SYNLIG OG USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES. UNNGÅ EKSPONERING FOR STRÅLEN.

VARO! AVATTAESSA OLET ALTTIINA NÄKYVÄÄ JA NÄKYMÄTÖN LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

VORSICHT – SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.

ATTENTION – RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU.

注意 – 打开时有可见及不可见激光辐射，避免激光束照射。

注意 – ここを開くと可視及び不可視レーザー光が出ます。ビームを見たり、触れたりしないで下さい。 RQLXS0054

(Inside of product)

CAUTION:
THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

7. About Lead Free Solder (PbF)

Distinction of PbF PCB: PCBs (manufactured) using lead free solder will have a PbF stamp on the PCB.

Caution:

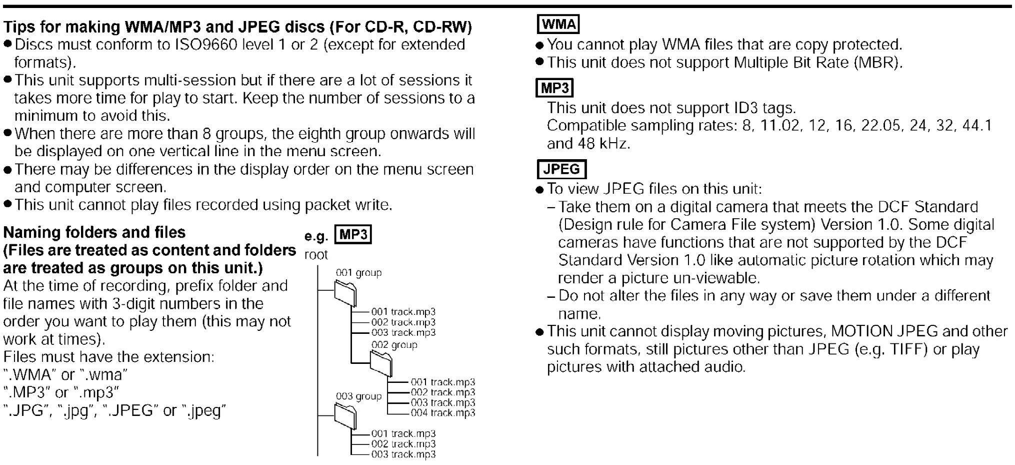
- **Pb free solder has a higher melting point than standard solder; Typically the melting point is 50 - 70°F (30 - 40°C) higher. Please use a high temperature soldering iron. In case of the soldering iron with temperature control, please set it to 700 ± 20°F (370 ± 10°C).**
- **Pb free solder will tend to splash when heated too high (about 1100°F/ 600°C).**

When soldering or unsoldering, please completely remove all of the solder on the pins or solder area, and be sure to heat the soldering points with the Pb free solder until it melts enough.

8. General Description

8.1. Operating instructions

8.2. Disc information



Tips for making WMA/MP3 and JPEG discs (For CD-R, CD-RW)

- Discs must conform to ISO9660 level 1 or 2 (except for extended formats).
- This unit supports multi-session but if there are a lot of sessions it takes more time for play to start. Keep the number of sessions to a minimum to avoid this.
- When there are more than 8 groups, the eighth group onwards will be displayed on one vertical line in the menu screen.
- There may be differences in the display order on the menu screen and computer screen.
- This unit cannot play files recorded using packet write.

Naming folders and files
(Files are treated as content and folders are treated as groups on this unit.)
At the time of recording, prefix folder and file names with 3-digit numbers in the order you want to play them (this may not work at times).
Files must have the extension:
".WMA" or ".wma"
".MP3" or ".mp3"
".JPG", ".jpg", ".JPEG" or ".jpeg"

WMA

- You cannot play WMA files that are copy protected.
- This unit does not support Multiple Bit Rate (MBR).

MP3

This unit does not support ID3 tags.
Compatible sampling rates: 8, 11.02, 12, 16, 22.05, 24, 32, 44.1 and 48 kHz.

JPEG

- To view JPEG files on this unit:
  - Take them on a digital camera that meets the DCF Standard (Design rule for Camera File system) Version 1.0. Some digital cameras have functions that are not supported by the DCF Standard Version 1.0 like automatic picture rotation which may render a picture un-viewable.
  - Do not alter the files in any way or save them under a different name.
- This unit cannot display moving pictures, MOTION JPEG and other such formats, still pictures other than JPEG (e.g. TIFF) or play pictures with attached audio.

8.3. About HighMAT

8.3.1. What’s HighMAT?

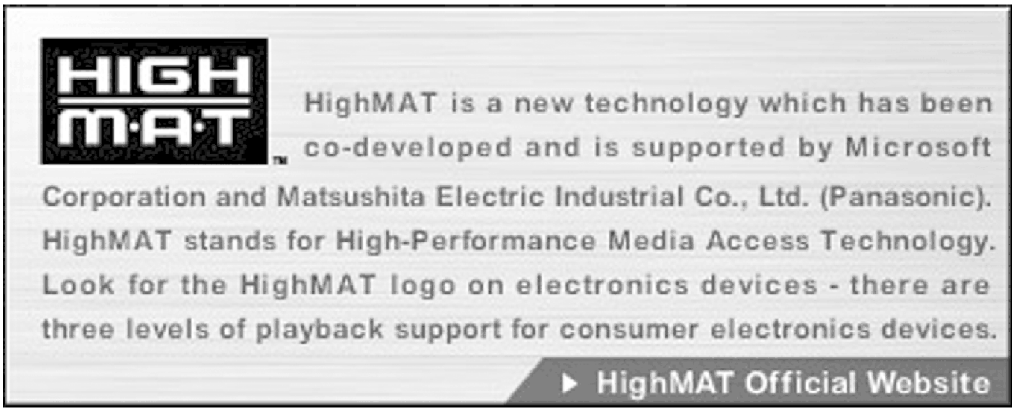
Consumers worldwide are using PCs to create their own collections of music, photos and even video by burning them onto CDs. But how these collections can be experienced across different devices can be confusing to navigate, time consuming to access for a DVD player, and be incomplete in terms of music information available to the customer.
HighMAT offers a solution to this growing consumer problem. HighMAT dramatically improves

the digital media experience on consumer electronic devices by delivering a simple, standardized approach that allows consumers who have created personal collections of digital music, photography and video on their PC to:

>> Create a HighMAT CD or DVD which can be easily played back on consumer electronics devices such as CD and DVD players, and car stereos.

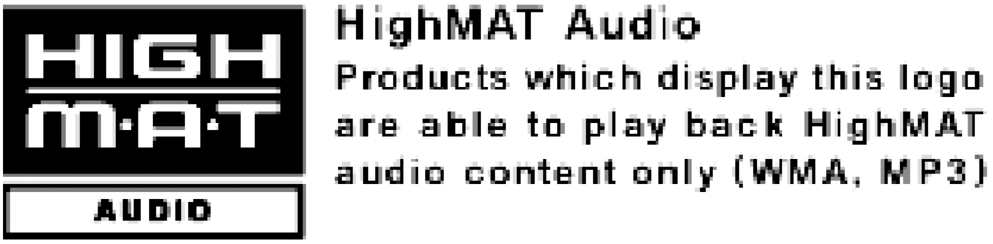
>> Move digital media files (using recordable media such as CD-R and CD-RW) between the PC and various playback devices such as CD and DVD players.

A new standard for creating personal media on consumer electronic devices, HighMAT enable easier and more seamless interoperability between Windows PCs and devices designed for your living room, or the car.



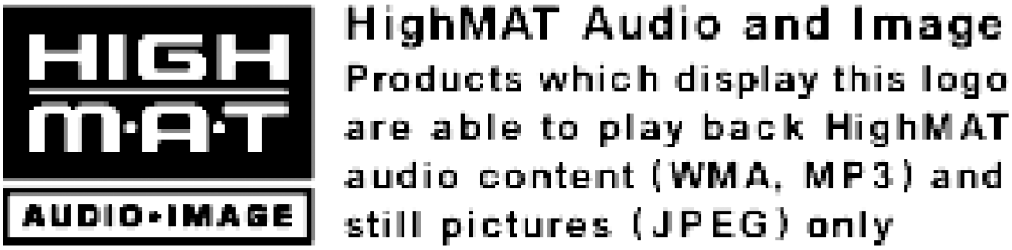
HighMAT is a new technology which has been co-developed and is supported by Microsoft Corporation and Matsushita Electric Industrial Co., Ltd. (Panasonic). HighMAT stands for High-Performance Media Access Technology. Look for the HighMAT logo on electronics devices - there are three levels of playback support for consumer electronics devices.

▶ HighMAT Official Website


HIGH M·A·T
AUDIO

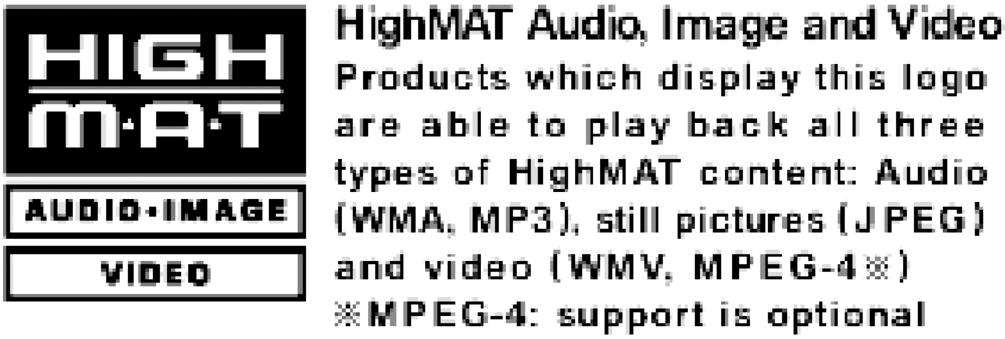
HighMAT Audio

Products which display this logo are able to play back HighMAT audio content only (WMA, MP3)


HIGH M·A·T
AUDIO•IMAGE

HighMAT Audio and Image

Products which display this logo are able to play back HighMAT audio content (WMA, MP3) and still pictures (JPEG) only


HIGH M·A·T
AUDIO•IMAGE
VIDEO

HighMAT Audio, Image and Video

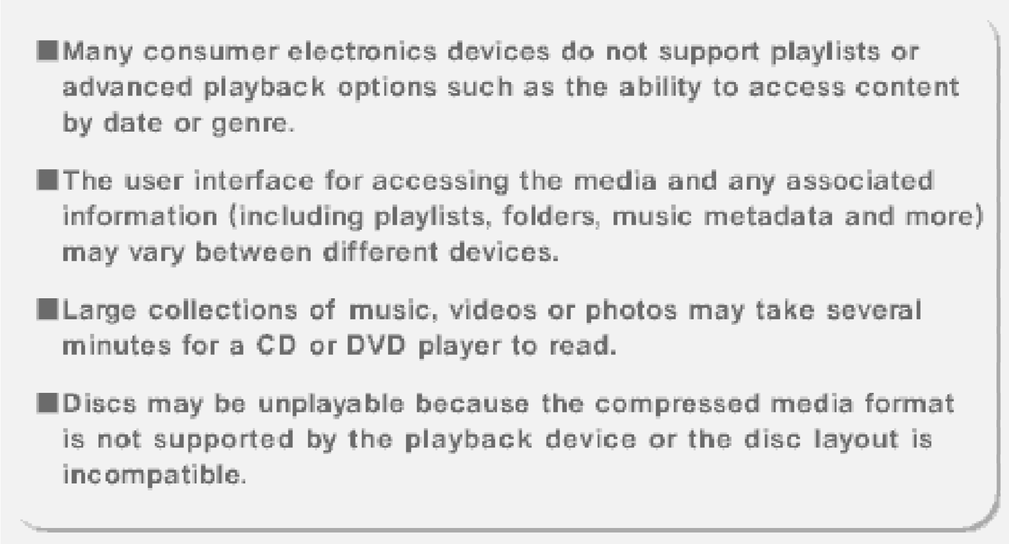
Products which display this logo are able to play back all three types of HighMAT content: Audio (WMA, MP3), still pictures (JPEG) and video (WMV, MPEG-4※)

※MPEG-4: support is optional

8.3.2. Why take advantage of HighMAT?

A Problem Defined:Today, when consumers create their own digital audio, video or photo

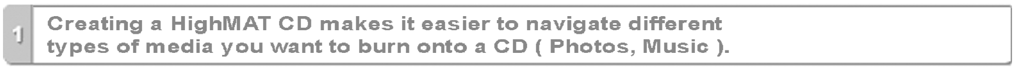
collections on CD-R or other physical formats, there are numerous, inconsistent ways that devices read the data. For the consumer, the playback experience can be confusing:



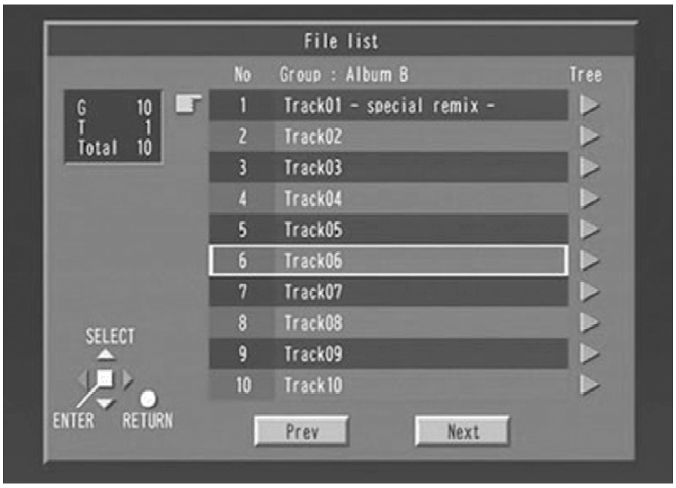
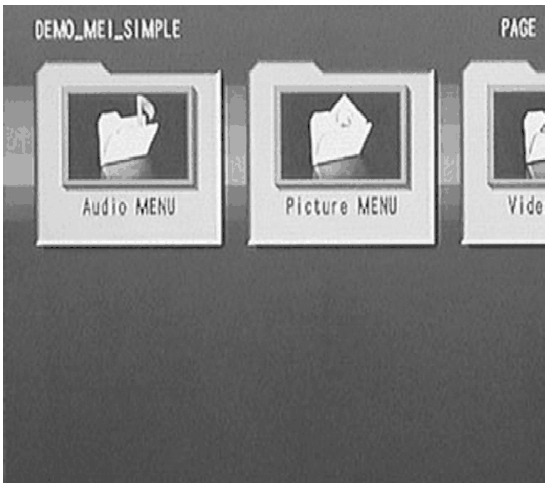
- Many consumer electronics devices do not support playlists or advanced playback options such as the ability to access content by date or genre.
- The user interface for accessing the media and any associated information (including playlists, folders, music metadata and more) may vary between different devices.
- Large collections of music, videos or photos may take several minutes for a CD or DVD player to read.
- Discs may be unplayable because the compressed media format is not supported by the playback device or the disc layout is incompatible.

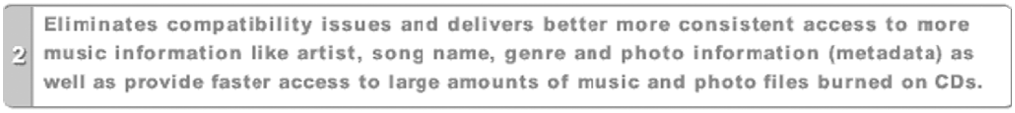
A Solution Created: HighMAT delivers a better digital media access experience by creating a standard approach for PCs to structure digital media on various physical formats and for playback devices to read the data.

8.3.3. Benefits of HighMAT?

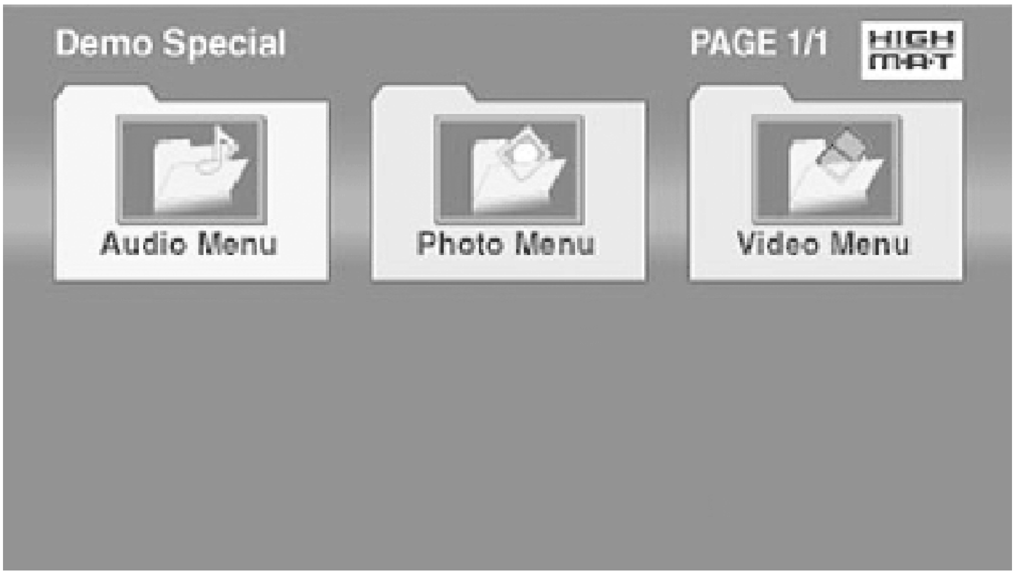


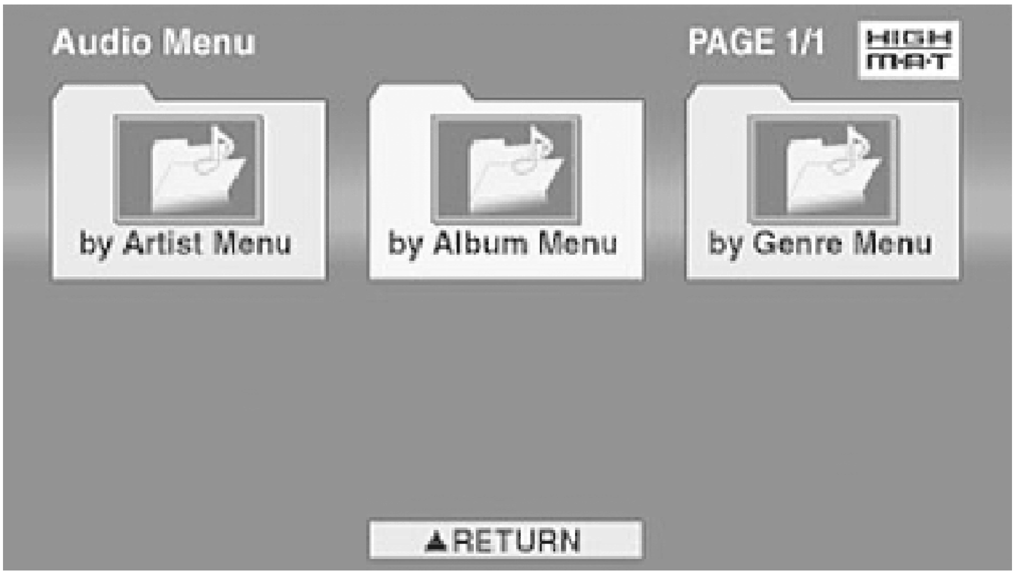
1 Creating a HighMAT CD makes it easier to navigate different types of media you want to burn onto a CD (Photos, Music).

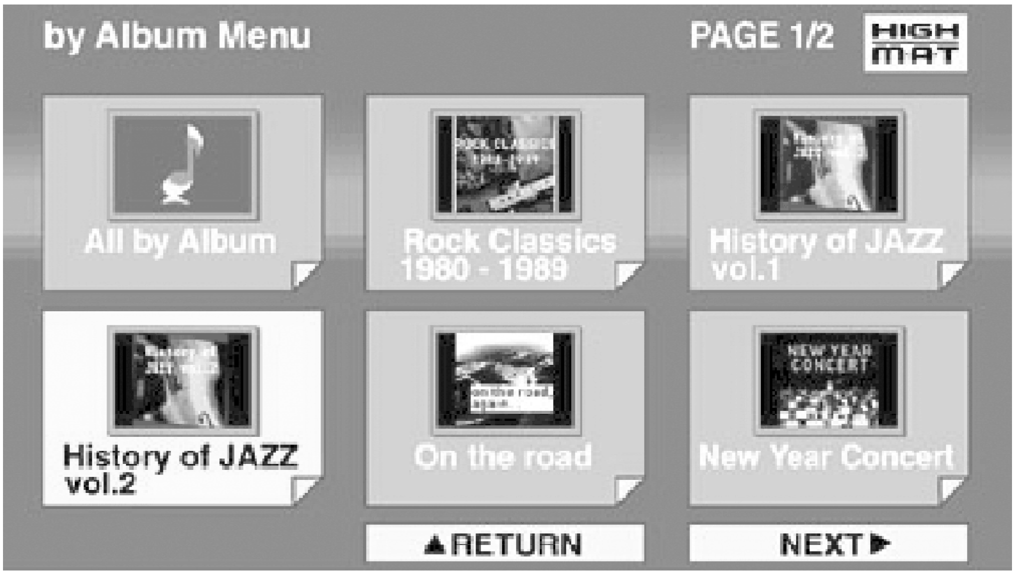
Conventional	HighMAT
Even though DVD player is CD-R/RW compatible, the inconsistent ways that various DVD players can read the music or photos files often leads to a confusing and inconsistant playback experince.	**HighMAT compatible products play content with consistent interface. This includes pro which are JPEG compatible products witho HighMAT support.**
 File list No Group : Album B Tree G 10 T 1 Total 10 1 Track01 - special remix - 2 Track02 3 Track03 4 Track04 5 Track05 6 Track06 7 Track07 8 Track08 9 Track09 10 Track10 SELECT ENTER RETURN Prev Next	 DEMO_MEI_SIMPLE PAGE Audio MENU Picture MENU Vide

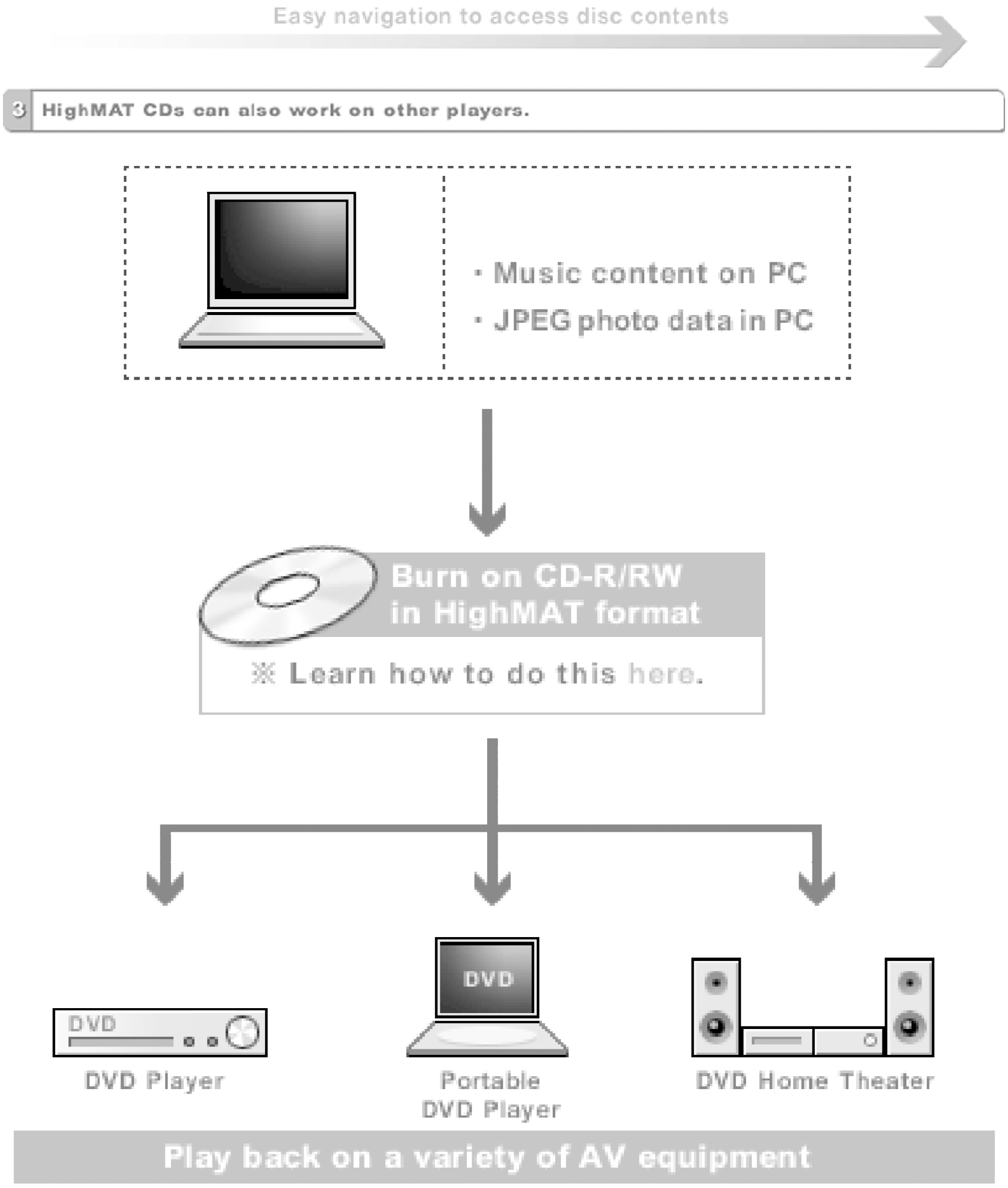


2 Eliminates compatibility issues and delivers better more consistent access to more music information like artist, song name, genre and photo information (metadata) as well as provide faster access to large amounts of music and photo files burned on CDs.


Demo Special
PAGE 1/1
HIGH MAT
Audio Menu
Photo Menu
Video Menu


Audio Menu
PAGE 1/1
HIGH MAT
by Artist Menu
by Album Menu
by Genre Menu
▲RETURN


by Album Menu
PAGE 1/2
HIGH MAT
All by Album
Rock Classics 1980 - 1989
History of JAZZ vol.1
History of JAZZ vol.2
On the road
New Year Concert
▲RETURN
NEXT▶


Easy navigation to access disc contents
3 HighMAT CDs can also work on other players.
· Music content on PC
· JPEG photo data in PC
Burn on CD-R/RW in HighMAT format
※ Learn how to do this here.
DVD
DVD Player
DVD
Portable DVD Player
DVD Home Theater
Play back on a variety of AV equipment

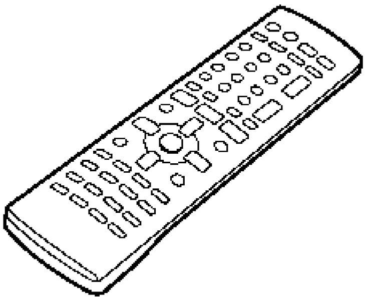
HighMAT is now available for CD Burning and in Leading DVD Players / HighMAT is a new technology that is now available in leading software and consumer electronic devices to dramatically improve the digital media experience when you create homemade CDs / HighMAT delivers a simple, standardized way for PC software and consumer electronics devices to talk to each other and work better together.

When you create your homemade CDs with software that supports HighMAT CD burning, and then play them back on a DVD player that supports HighMAT, you get better, easier navigation. You get folders you can access with a single click of your DVD player's remote control. You can view important information about your music like full song names, artist titles, album names and genre. And you can get faster startup on your home entertainment device.

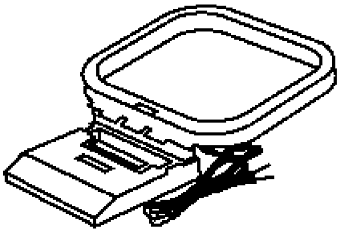
To enjoy the benefits of HighMAT, all you need is software that supports HighMAT for CD burning of music or photos, as well as a home entertainment device like a DVD player that supports HighMAT for playback. Always look for the HighMAT logo on your software or home entertainment device to ensure it supports the HighMAT experience.

9. Accessories

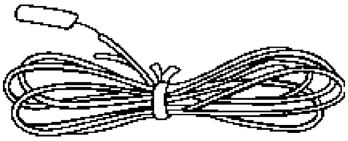
Remote control



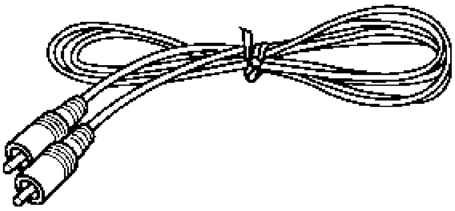
AM loop antenna



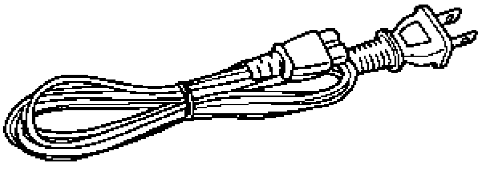
FM indoor antenna



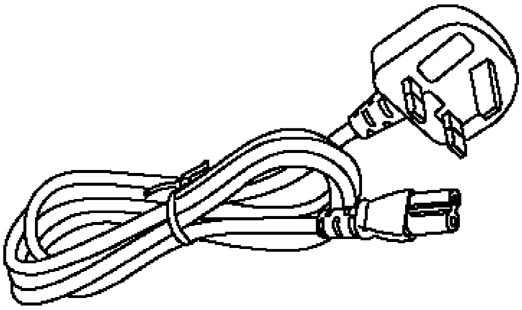
Video Cable



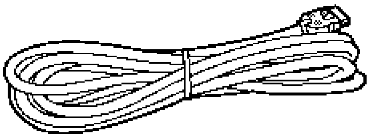
AC cord



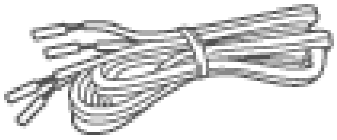
AC cord / [For GS area]



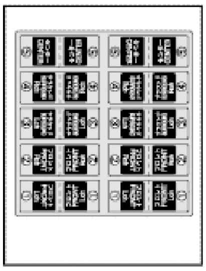
System cable



Speaker cable



Speaker label



10. Caution for AC Cord

(For Saudi Arabia and Kuwait)

("GS" area code model only)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.
Check for the ASTA mark ◈ or the BSI mark ▽ on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local dealer.

CAUTION!
IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:
Blue: Neutral, Brown: Live.
As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.
The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL ⏚ OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use

Remove the connector cover.

How to replace the fuse

The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.
Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A

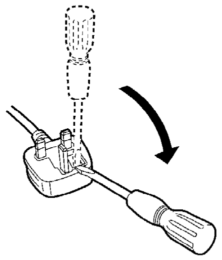
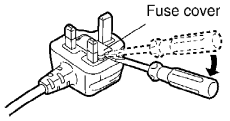


Figure B



2. Replace the fuse and close or attach the fuse cover.

Figure A

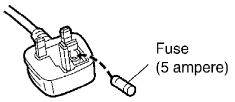
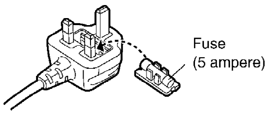


Figure B



11. Handling Precautions for Optical Pickup Unit

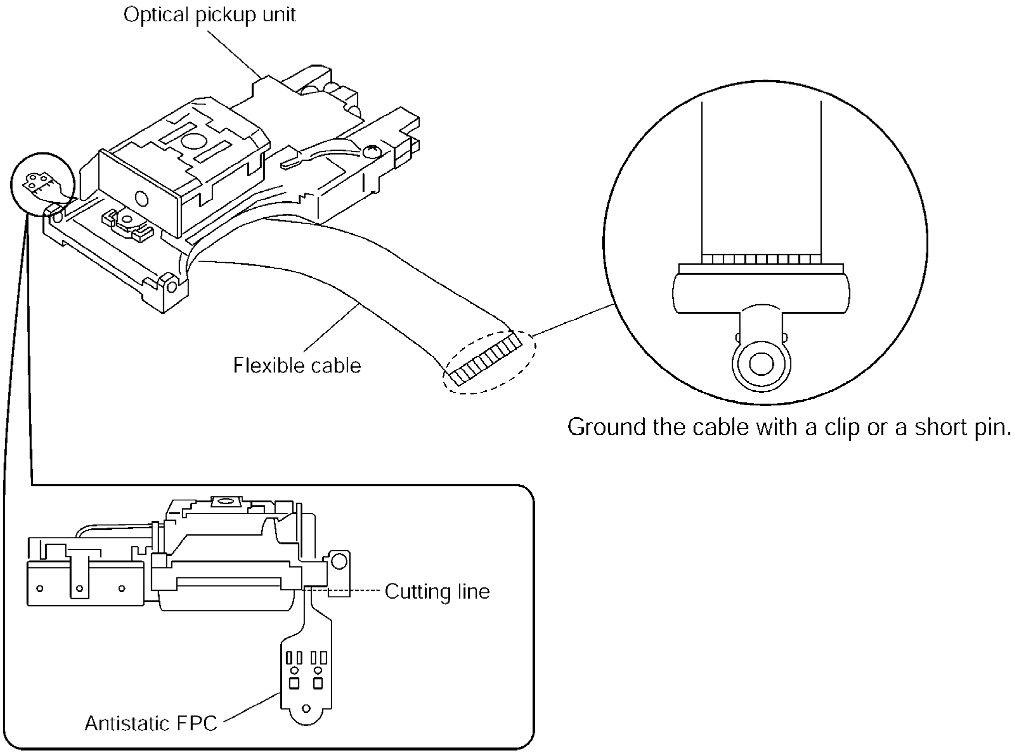
The laser diode in the optical pickup unit may break down due to static electricity of clothes or human body. Special care must be taken avoid caution to electrostatic breakdown when servicing and handling the laser diode.

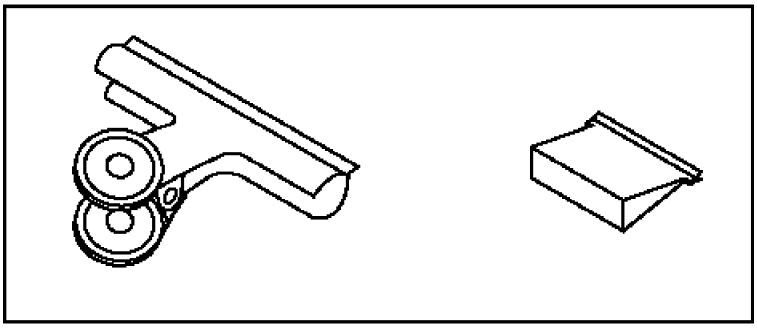
11.1. Cautions to Be Taken in Handling the Optical Pickup Unit

The laser diode in the optical pickup unit may be damaged due to electrostatic discharge generating from clothes or human body. Special care must be taken avoid caution to electrostatic discharge damage when servicing the laser diode.

1. Do not give a considerable shock to the optical pickup unit as it has an extremely high-precise structure.

2. **To prevent the laser diode from the electrostatic discharge damage, the flexible cable of the optical pickup unit removed should be short-circuited with a short pin or a clip.**
3. **The flexible cable may be cut off if an excessive force is applied to it. Use caution when handling the flexible cable.**
4. **The antistatic FPC is connected to the new optical pickup unit. After replacing the optical pickup unit and connecting the flexible cable, cut off the antistatic FPC.**


Optical pickup unit
Flexible cable
Ground the cable with a clip or a short pin.
Cutting line
Antistatic FPC



Clip or Short pin

11.2. Grounding for electrostatic breakdown prevention

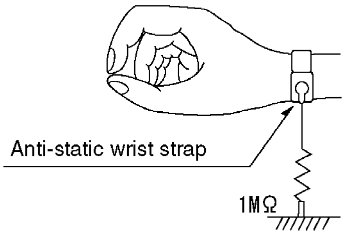
Some devices such as the DVD player use the optical pickup (laser diode) and the optical pickup will be damaged by static electricity in the working environment. Proceed servicing works under the working environment where grounding works is completed.

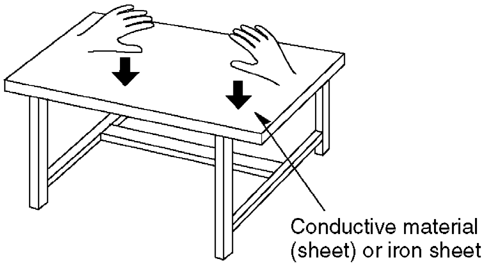
11.2.1. Worktable grounding

1. **Put a conductive material (sheet) or iron sheet on the area where the optical pickup is placed, and ground the sheet.**

11.2.2. Human body grounding

1. **Use the anti-static wrist strap to discharge the static electricity form your body.**





12. Disassembly and Main Component Replacement Procedure

“ATTENTION SERVICER”

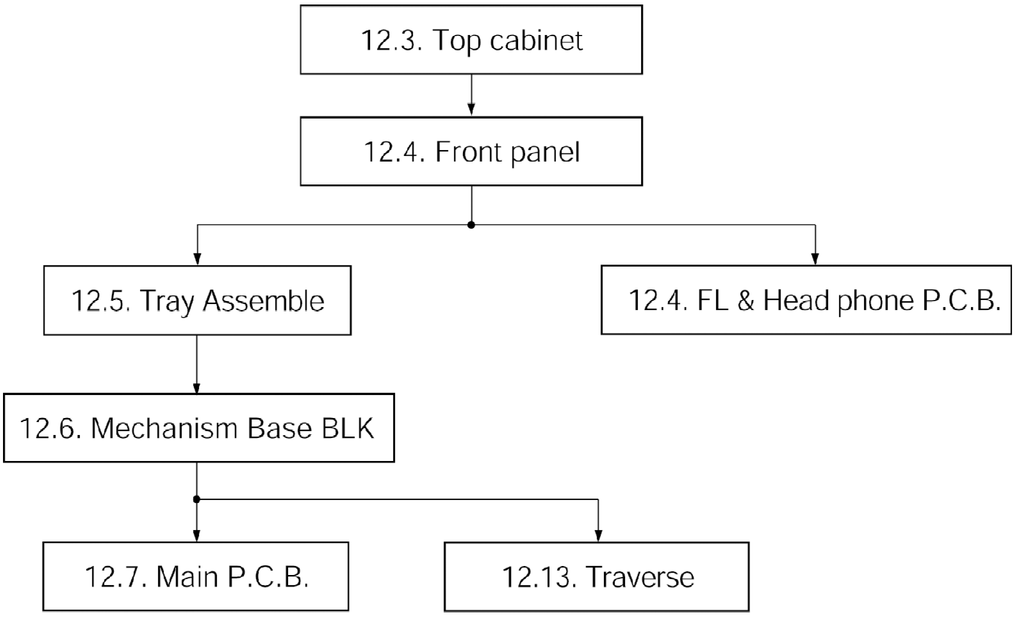
Some chassis components may have sharp edges.
Be careful when disassembling and servicing.

1. **This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.**
2. **For assembly after operation checks or replacement, reverse the respective procedures.**
   Special reassembly procedures are described only when required.
3. **Select items from the following index when checks or replacement are required.**

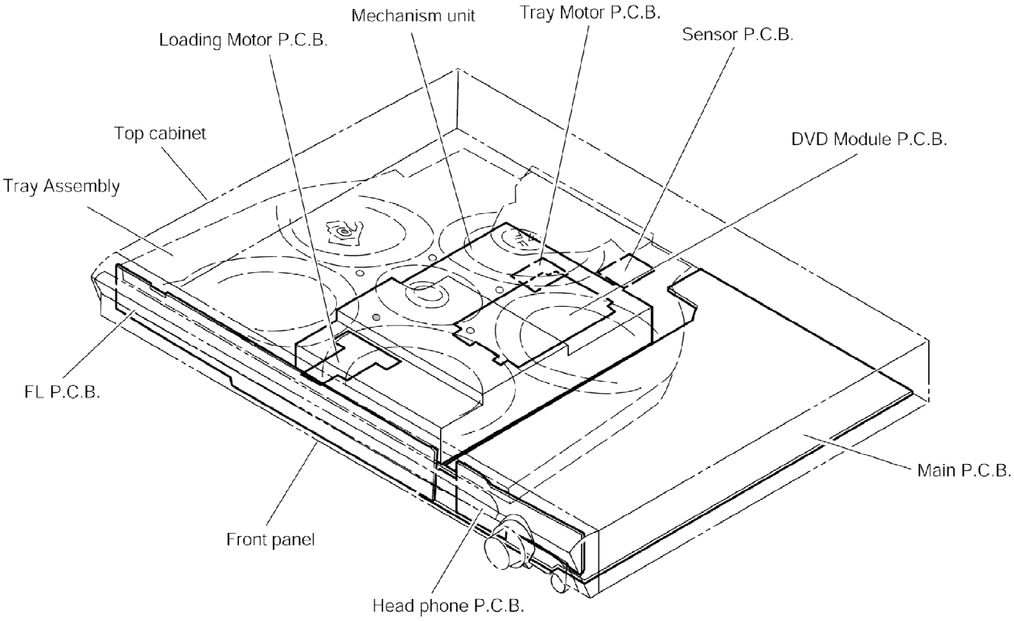
- **Disassembling the Top Cabinet**
- **Disassembling the Front Panel**
- **Disassembling the Tray Assembly**
- **Disassembling the Mechanism Base Block**
- **Disassembling the Main P.C.B**
- **Removal of the Tray Base Guide (L) and Tray Base Guide (R)**
- **Removal of the Rotary Tray**
- **Removal of the Open Lock Gear**

- **Removal of the Close Lock Gear**
- **Removal of the Tray Motor P.C.B.and Sensor P.C.B.**
- **Removal of the Traverse Unit**
- **Removal of the Pulley Gear**
- **Removal of the Loading Motor P.C.B.**
- **Removal of the Drive Gear (A) & (B)**
- **Disassembly the Fixed Plate, Magnet and Clamper**
- **Removal of the Cam Gear & Support Piece**
- **Removal of the Slide Plate (L) & (R) and Changer Lever**
- **Assembly of Tray Base**

12.1. Disassembly Procedure


12.3. Top cabinet
12.4. Front panel
12.5. Tray Assemble
12.4. FL & Head phone P.C.B.
12.6. Mechanism Base BLK
12.7. Main P.C.B.
12.13. Traverse

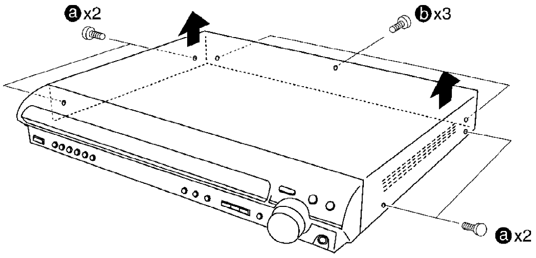
12.2. Main Components and P.C.B. Locations


Mechanism unit
Tray Motor P.C.B.
Loading Motor P.C.B.
Sensor P.C.B.
Top cabinet
DVD Module P.C.B.
Tray Assembly
FL P.C.B.
Main P.C.B.
Front panel
Head phone P.C.B.

12.3. Disassembling the Top Cabinet

Step 1 Remove 7 screws.

Step 2 Remove the top cabinet in the direction of arrow.



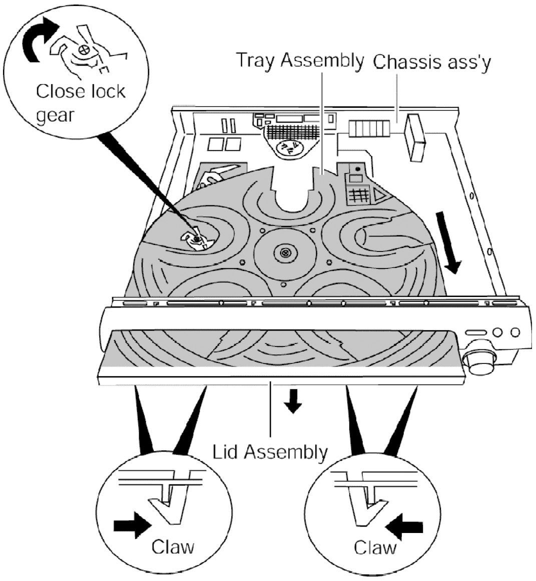
12.4. Disassembling the Front Panel

- Follow the (Step 1) - (Step 2) of Item 12.3.

Step 1 Keep the close lock gear pressed in clockwise, move the tray assembly in the direction of the arrow.

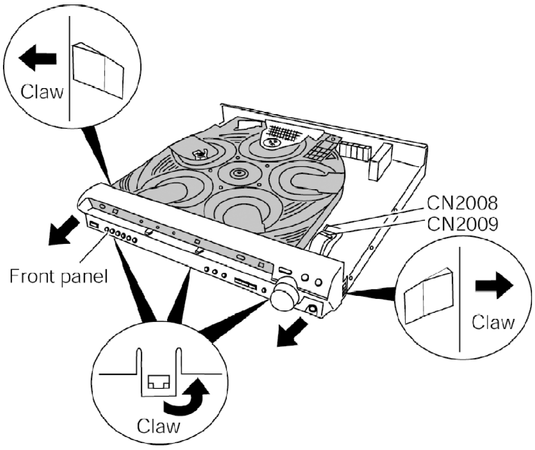
Step 2 Unclock the claws at the bottom of the top tray.

Step 3 Remove the lid assembly in the direction of arrow.


Close lock gear
Tray Assembly
Chassis ass'y
Lid Assembly
Claw
Claw

Step 4 Pull out the FFC from connectors (CN2008 & CN2009).

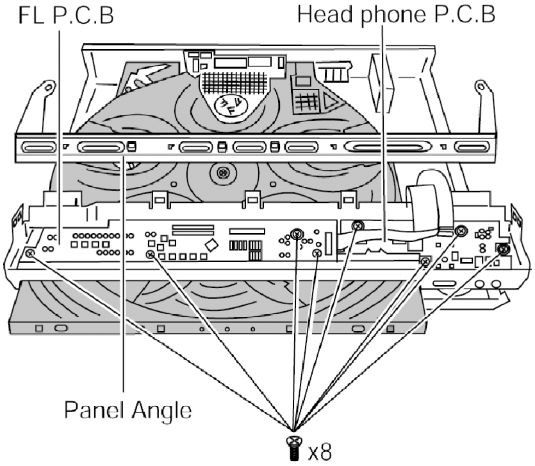
Step 5 Unclock the claws of the front panel in the directions.


Claw
CN2008
CN2009
Front panel
Claw
Claw

Step 6 Remove the front panel in the direction of arrow.

Step 7 Remove Panel angle.

Step 8 Remove 8 screws.


FL P.C.B
Head phone P.C.B
Panel Angle
x8

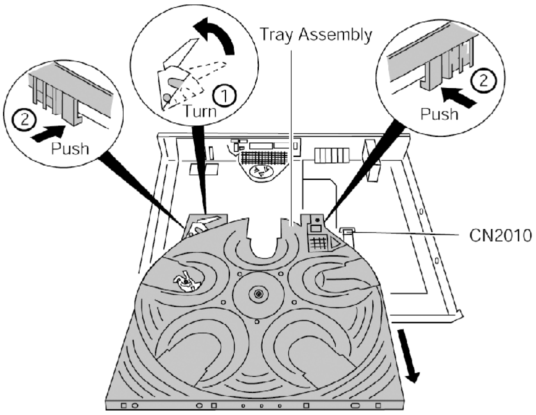
12.5. Disassembling the Tray Assembly

- Follow the (Step 1) - (Step 2) of Item 12.3.

- Follow the (Step 1) - (Step 6) of Item 12.4.

Step 1 Pull out the FFC from connector. (CN2010)

Step 2 Hold gear, push and release the 2 claws in the direction of arrow.



Tray Assembly
①
Turn
②
Push
②
Push
CN2010

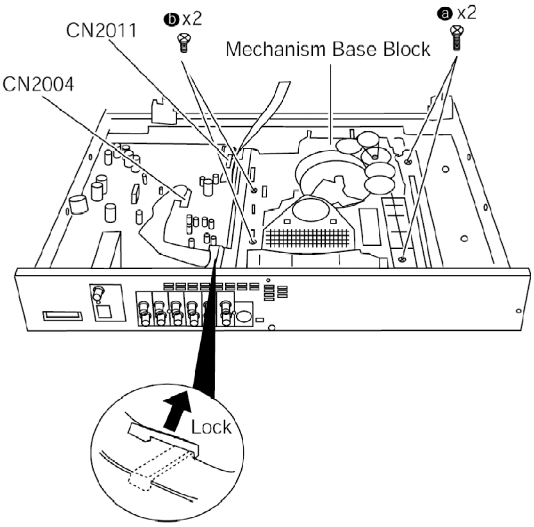
12.6. Disassembling the Mechanism Base Block

- Follow the (Step 1) - (Step 2) of Item 12.3.

- Follow the (Step 1) - (Step 6) of Item 12.4.

- Follow the (Step 1) - (Step 2) of Item 12.5.

Step 1 Remove 4 screws and unlock the lock.



CN2011
ⓑx2
Mechanism Base Block
ⓐx2
CN2004
Lock

Step 2 Detach FFC cable at connectors (CN2004,CN2011).

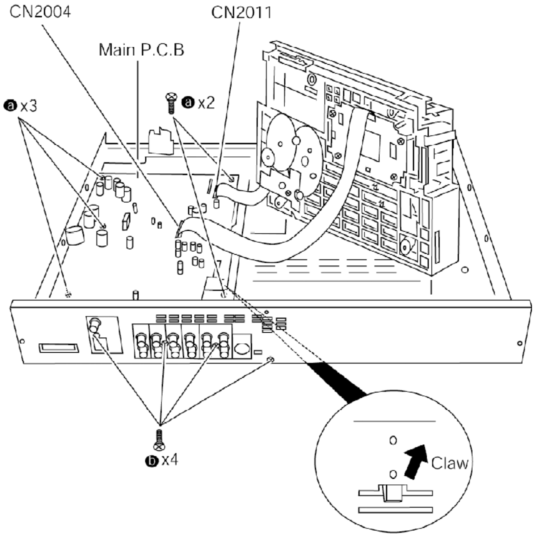
Step 3 Remove mechanism base block.

12.7. Disassembling the Main P.C.B

- Follow Item 11.6.

Step 1 Unlock the claw and remove 9 screws.

Step 2 Remove the main P.C.B.

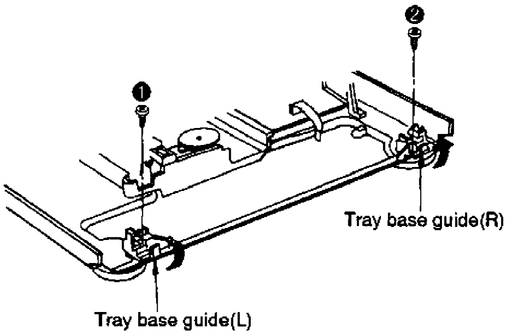

CN2004
CN2011
Main P.C.B
ⓐx3
ⓐx2
ⓑx4
Claw

12.8. Removal of the Tray Base Guide (L) and Tray Base Guide (R)

- Follow the (Step 1) - (Step 2) of Item 12.3.

- Follow the (Step 1) - (Step 6) of Item 12.4.

- Follow the (Step 1) - (Step 2) of Item 12.5.


❶
❷
Tray base guide(R)
Tray base guide(L)

Step 1 Remove the 2 screws.

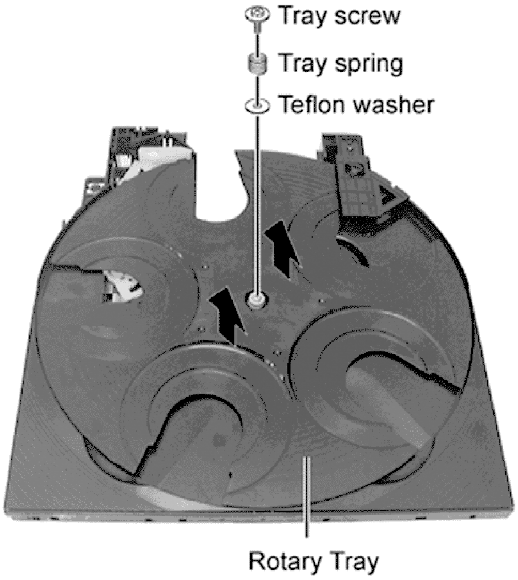
Step 2 Remove the tray base guide (L) and tray guide (R) in the direction of arrow.

12.9. Removal of the Rotary Tray

- Follow the (Step 1) - (Step 2) of Item 12.3.

- Follow the (Step 1) - (Step 6) of Item 12.4.

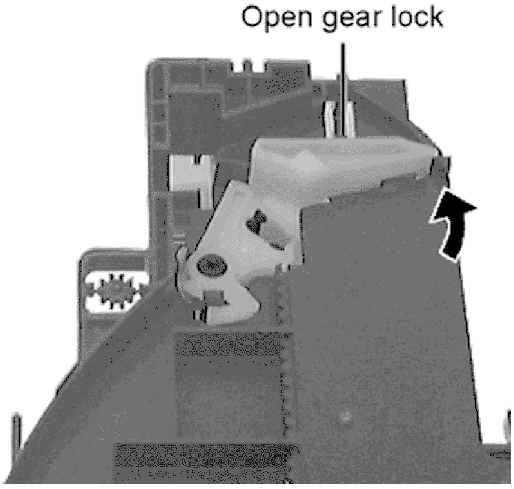
- Follow the (Step 1) - (Step 2) of Item 12.5.


Tray screw
Tray spring
Teflon washer
Rotary Tray

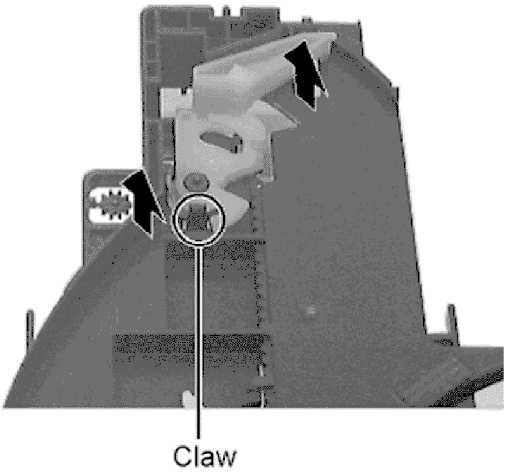
Step 1 Remove tray screw, tray spring and teflon washer.
Step 2 Remove rotary tray.

12.10. Removal of the Open Lock Gear

- Follow the (Step 1) - (Step 2) of Item 12.3.
- Follow the (Step 1) - (Step 6) of Item 12.4.
- Follow the (Step 1) - (Step 2) of Item 12.5.


Open gear lock

Step 1 Rotate open lock gear in the direction of arrow. (Anti-clockwise)



Step 2 Release claw of open lock gear, remove open lock gear in the direction of arrow.

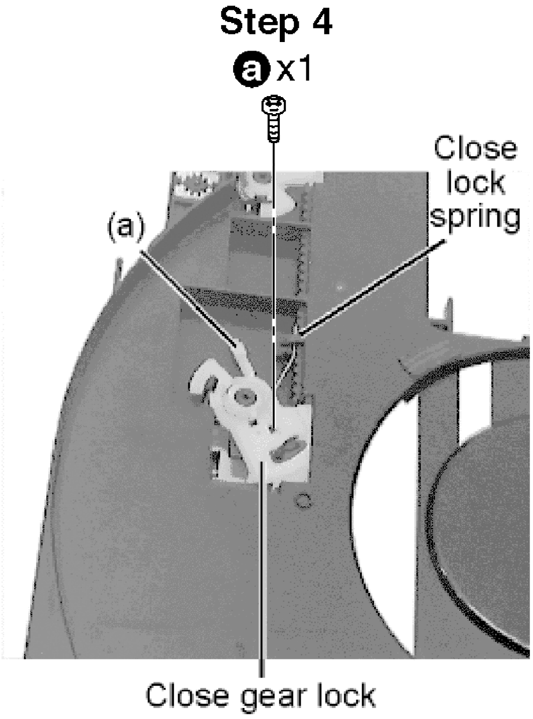
12.11. Removal of the Close Lock Gear

- Follow the (Step 1) - (Step 2) of Item 12.3.

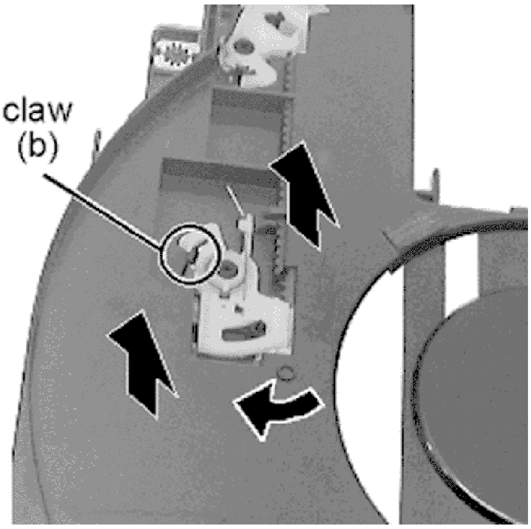
- Follow the (Step 1) - (Step 6) of Item 12.4.

- Follow the (Step 1) - (Step 2) of Item 12.5.

Step 1 Remove 1 screw.


Step 4
a x1
Close lock spring
(a)
Close gear lock

Step 2 Hook close lock spring to claw (a).



Step 3 Rotate close lock gear to direction of arrow, press claw (b) and pull out close lock gear.

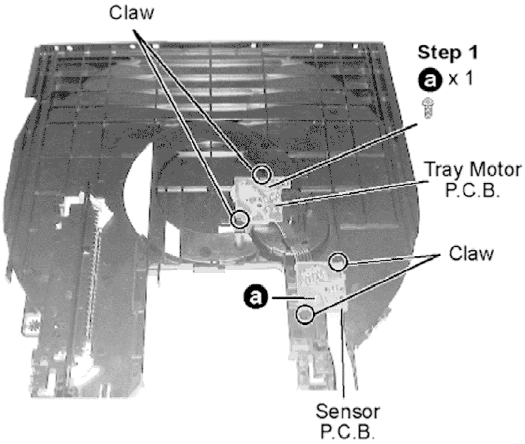
12.12. Removal of the Tray Motor P.C.B. and Sensor P.C.B.

- Follow the (Step 1) - (Step 2) of Item 12.3.

- Follow the (Step 1) - (Step 6) of Item 12.4.

- Follow the (Step 1) - (Step 2) of Item 12.5.

Step 1 Remove 2 screws.



Step 2 Release 4 claws at Tray Motor P.C.B. and Sensor P.C.B.

12.13. Removal of the Traverse Unit

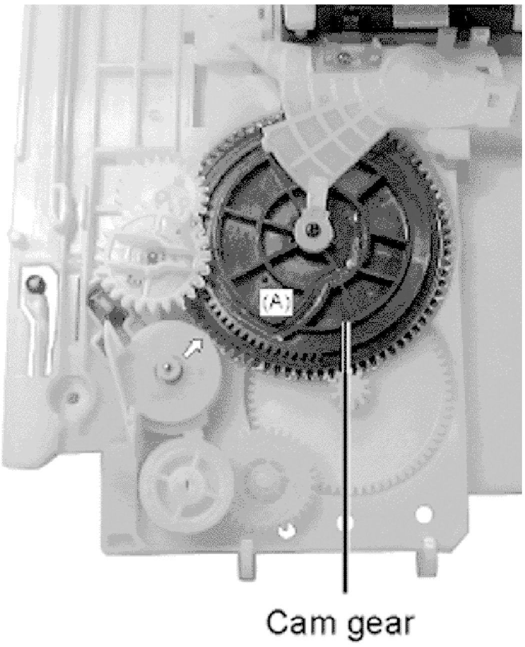
- Follow the (Step 1) - (Step 2) of Item 12.3.

- Follow the (Step 1) - (Step 6) of Item 12.4.

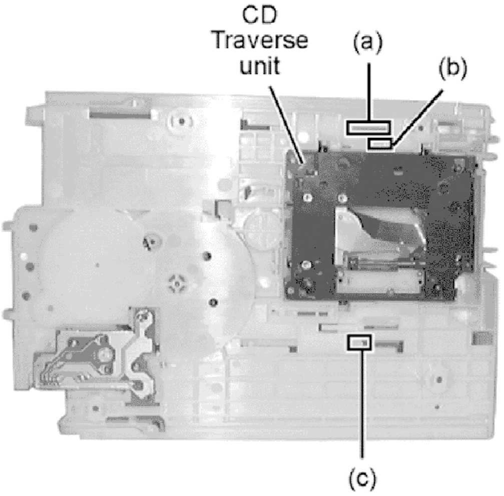
- Follow the (Step 1) - (Step 2) of Item 12.5.

- Follow the (Step 1) - (Step 3) of Item 12.6.

Step 1 Rotate cam gear anti-clockwise. (Align at position (A) as marking on gear with arrow)



Step 2 Flip the base mecha unit in vertical position.



Step 3 Press upward (a), push backward (b) and press to left (c) to release CD traverse unit.

12.14. Removal of the Pulley Gear

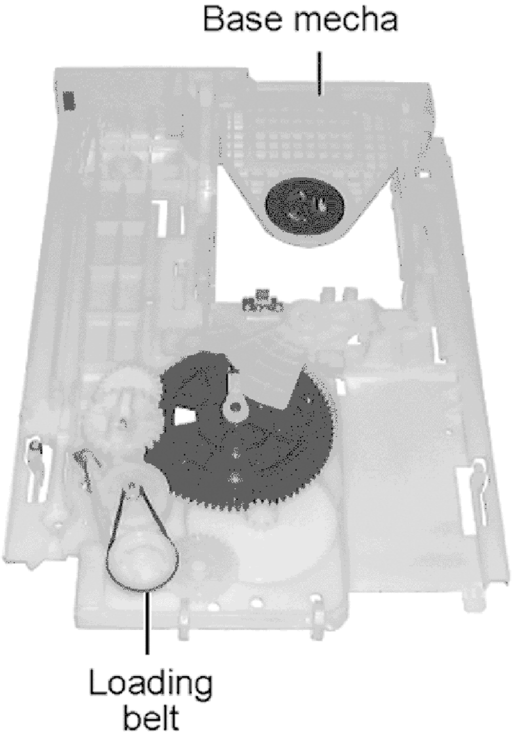
- Follow the (Step 1) - (Step 2) of Item 12.3.

- Follow the (Step 1) - (Step 6) of Item 12.4.

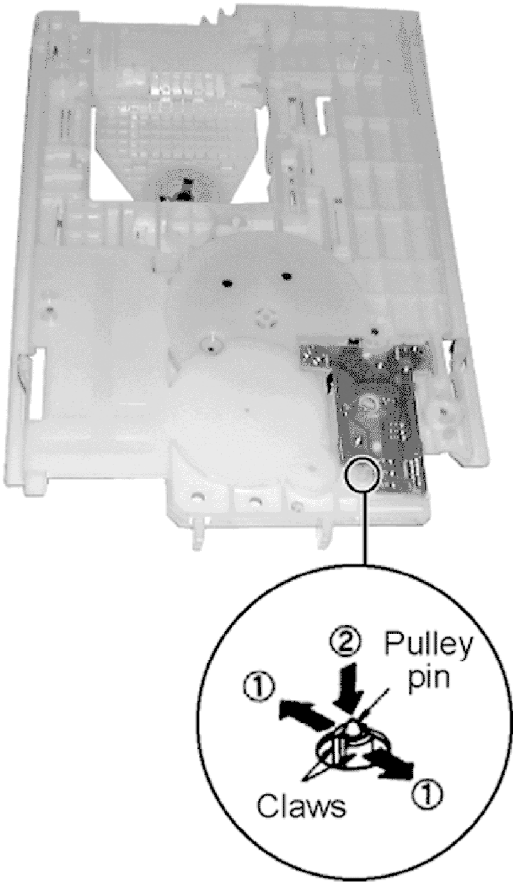
- Follow the (Step 1) - (Step 2) of Item 12.5.

- Follow the (Step 1) - (Step 3) of Item 12.6.

Step 1 Remove of the loading belt.


Base mecha
Loading belt

Step 2 Flip the base mecha.


② Pulley pin
①
Claws
①

Step 3 Release the 2 claws in the direction of arrow (1), and then push the pulley pin in the direction of arrow (2).

12.15. Removal of the Loading Motor P.C.B.

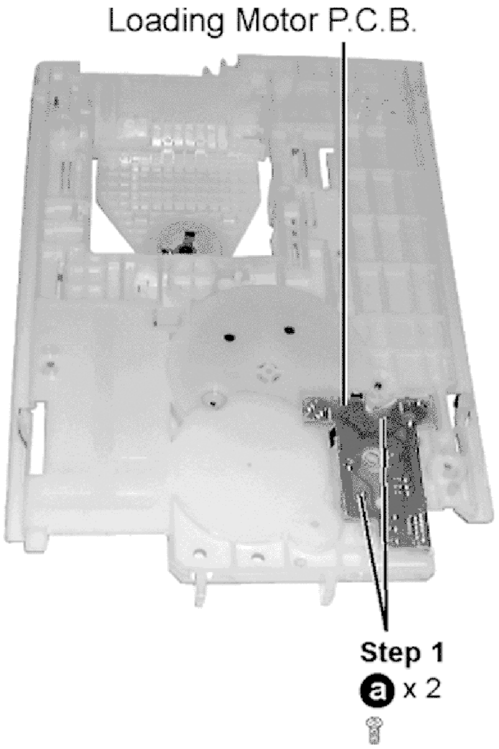
- Follow the (Step 1) - (Step 2) of Item 12.3.

- Follow the (Step 1) - (Step 6) of Item 12.4.

- Follow the (Step 1) - (Step 2) of Item 12.5.

- Follow the (Step 1) - (Step 3) of Item 12.6.

Step 1 Remove 2 screws.



Step 2 Remove Loading Motor P.C.B.

12.16. Removal of the Drive Gear (A) & (B)

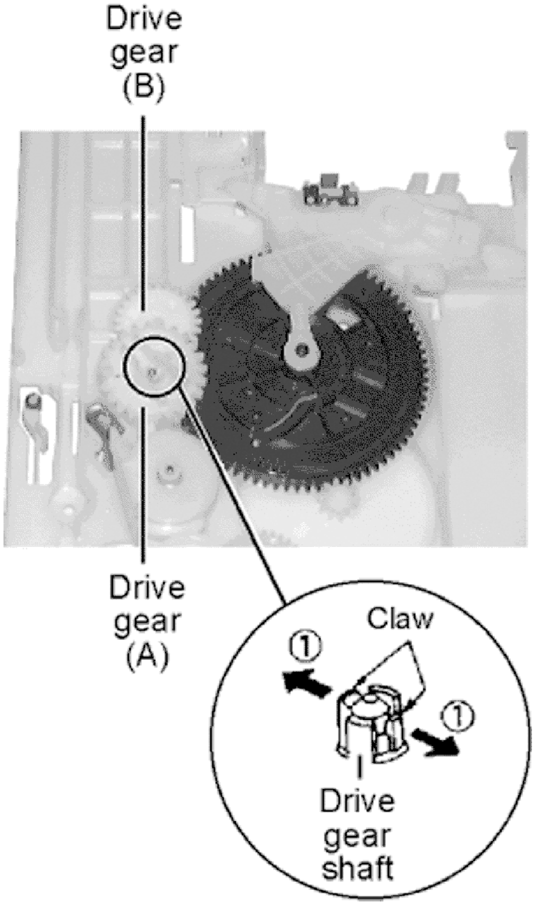
- Follow the (Step 1) - (Step 2) of Item 12.3.

- Follow the (Step 1) - (Step 6) of Item 12.4.

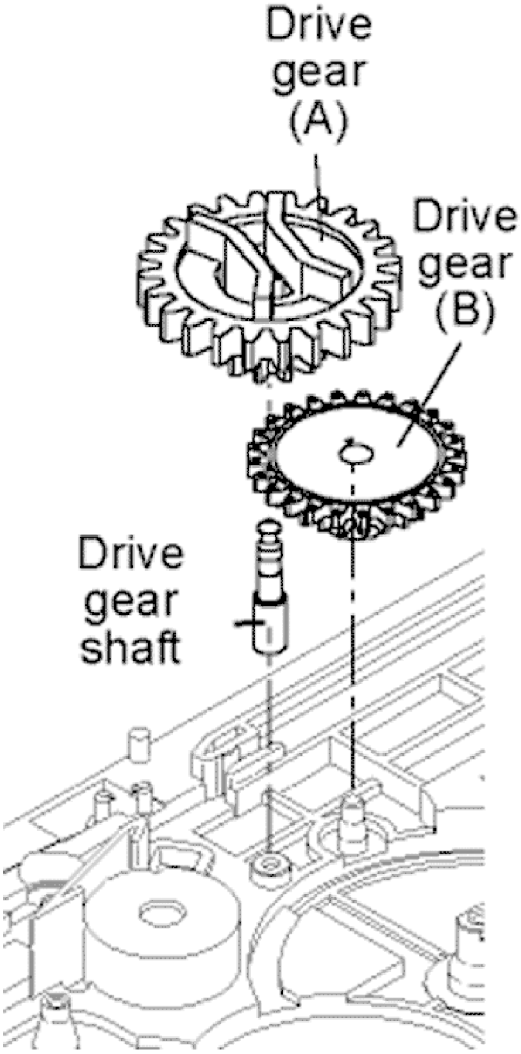
- Follow the (Step 1) - (Step 2) of Item 12.5.

- Follow the (Step 1) - (Step 3) of Item 12.6.

Step 1 Release the claw in the direction of arrow (1), and then push drive gear shaft up.


Drive gear (B)
Drive gear (A)
Claw
①
①
Drive gear shaft

Step 2 Remove Drive Gear (A) and Drive Gear (B).


Drive gear (A)
Drive gear (B)
Drive gear shaft

12.17. Disassembling the Fixed Plate, Magnet and Clamper

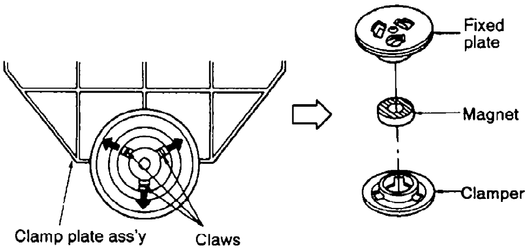
- Follow the (Step 1) - (Step 2) of Item 12.3.

- Follow the (Step 1) - (Step 6) of Item 12.4.

- Follow the (Step 1) - (Step 2) of Item 12.5.

- Follow the (Step 1) - (Step 3) of Item 12.6.

Step 1 Release 3 claws in the direction of arrow.


Fixed plate
Magnet
Clamper
Clamp plate ass'y
Claws

12.18. Removal of the Cam Gear & Support Piece

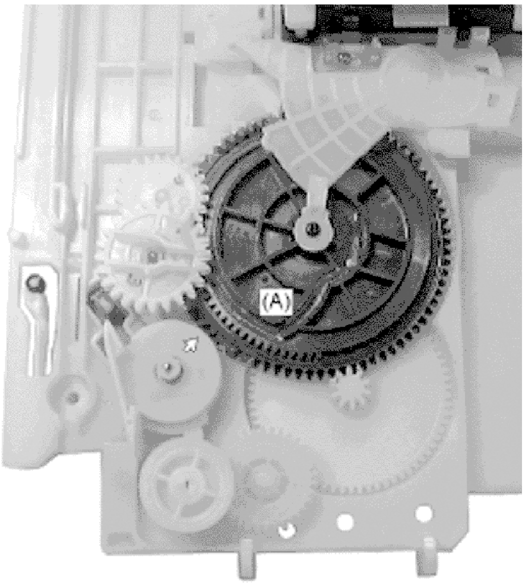
- Follow the (Step 1) - (Step 2) of Item 12.3.

- Follow the (Step 1) - (Step 6) of Item 12.4.

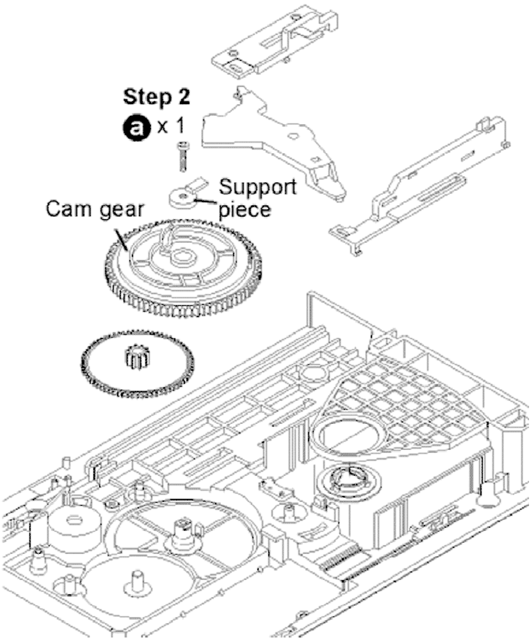
- Follow the (Step 1) - (Step 2) of Item 12.5.

- Follow the (Step 1) - (Step 3) of Item 12.6.

Step 1 Rotate (A) in cam gear anti-clockwise.



Step 2 Remove 1 screw and support piece.



12.19. Removal of the Slide Plate (L) & (R) and Change Lever

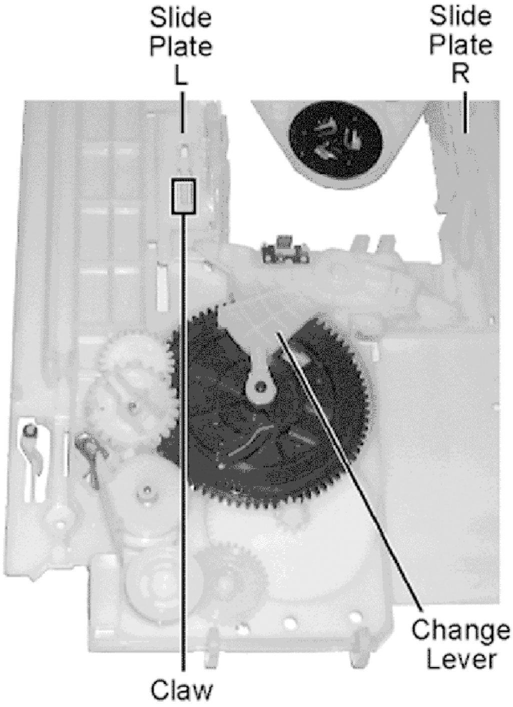
- Follow the (Step 1) - (Step 2) of Item 12.3.

- Follow the (Step 1) - (Step 6) of Item 12.4.

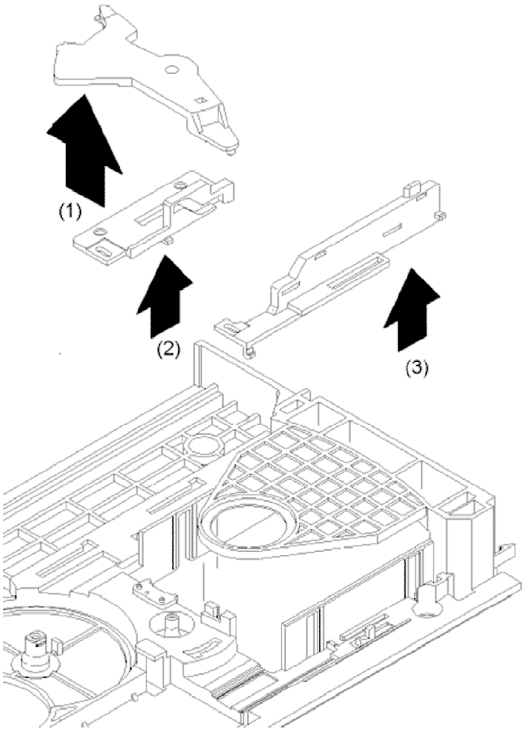
- Follow the (Step 1) - (Step 2) of Item 12.5.

- Follow the (Step 1) - (Step 3) of Item 12.6.

Step 1 Press the claw and push the Slide Plate (L) up.


Slide Plate L
Slide Plate R
Change Lever
Claw

Step 2 Remove slide plate (L) & (R) and change lever as arrow shown.



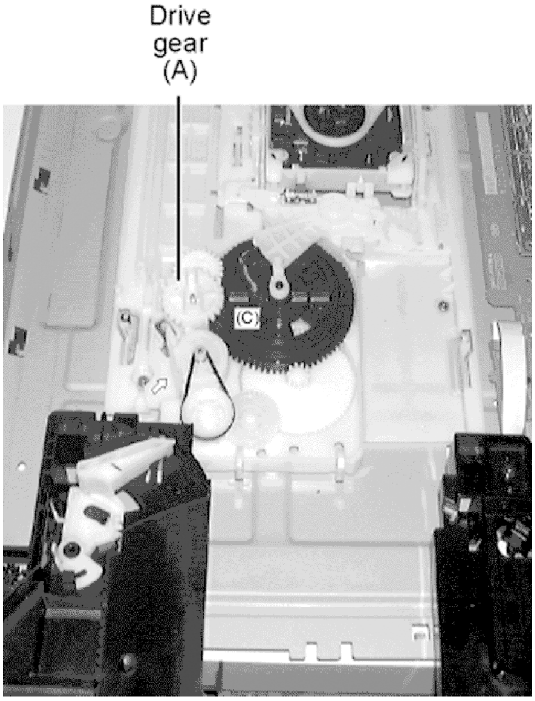
12.20. Assembly of Tray Base

- Follow the (Step 1) - (Step 2) of Item 12.3.

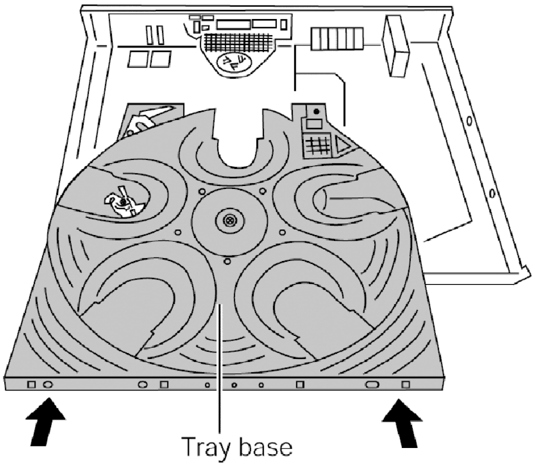
- Follow the (Step 1) - (Step 6) of Item 12.4.

- Follow the (Step 1) - (Step 2) of Item 12.5.

Step 1 Rotate cam gear anti-clockwise. Align at position (C) as marking on gear with arrow.



Step 2 Make sure drive gear (A) at vertical position.



Step 3 Push tray base to the direction of arrow shown.

13. Service Position

Prepare service tools before proccess service position.

Service Tools	
Loading Motor P.C.B - Main P.C.B	REEX0465 (11 pin)

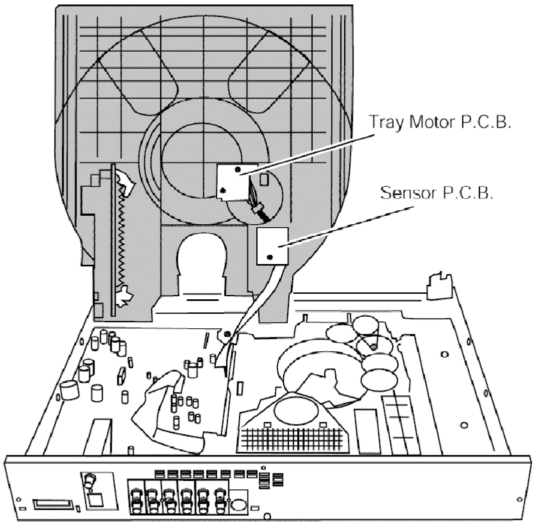
13.1. Checking & Repair Tray Motor P.C.B and Sensor P.C.B

- Follow the (Step 1) - (Step 2) of Item 12.3.

- Follow the (Step 1) - (Step 6) of Item 12.4.

- Follow the (Step 1) - (Step 2) of Item 12.5.

Step 1 Upset tray assembly.


Tray Motor P.C.B.
Sensor P.C.B.

13.2. Checking & Repair Main P.C.B

- Follow the (Step 1) - (Step 2) of Item 12.3.

- Follow the (Step 1) - (Step 8) of Item 12.4.

- Follow the (Step 1) - (Step 2) of Item 12.5.

- Follow the (Step 1) - (Step 3) of Item 12.6.

- Follow the (Step 1) - (Step 2) of Item 12.7.

Step 1 Change cable (REZ1483) to extended cable (REEX0465).

Step 2 Connect all the cables.

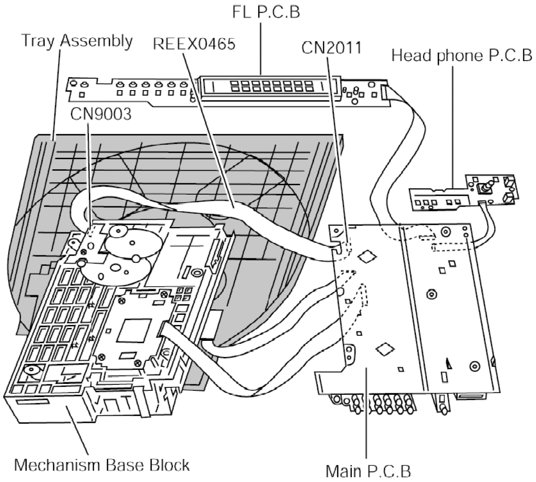
Step 3 Position mechanism base block and tray assembly in horizontally.

Step 4 Connect the system cable and switch on the power.

Step 5 Insert CD into tray assembly.

Step 6 Press CD mode button to lock the CD.

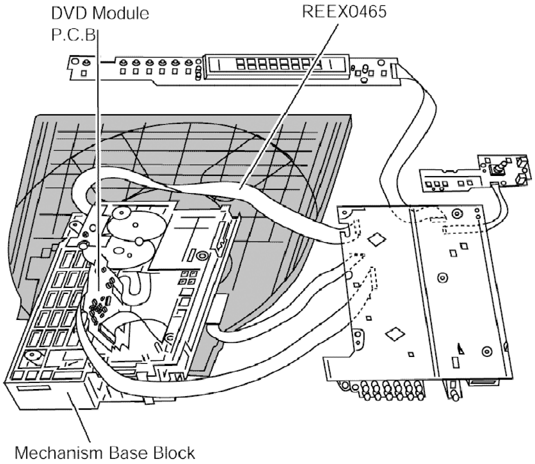
Step 7 Turn over mechanism base block, tray assembly and Main P.C.B and position 3 of it in horizontally.


FL P.C.B
Tray Assembly
REEX0465
CN2011
Head phone P.C.B
CN9003
Mechanism Base Block
Main P.C.B

13.3. Checking & Repair DVD Module P.C.B

- Follow the Item 13.2.

Step 1 Remove 4 screws of DVD module P.C.B.



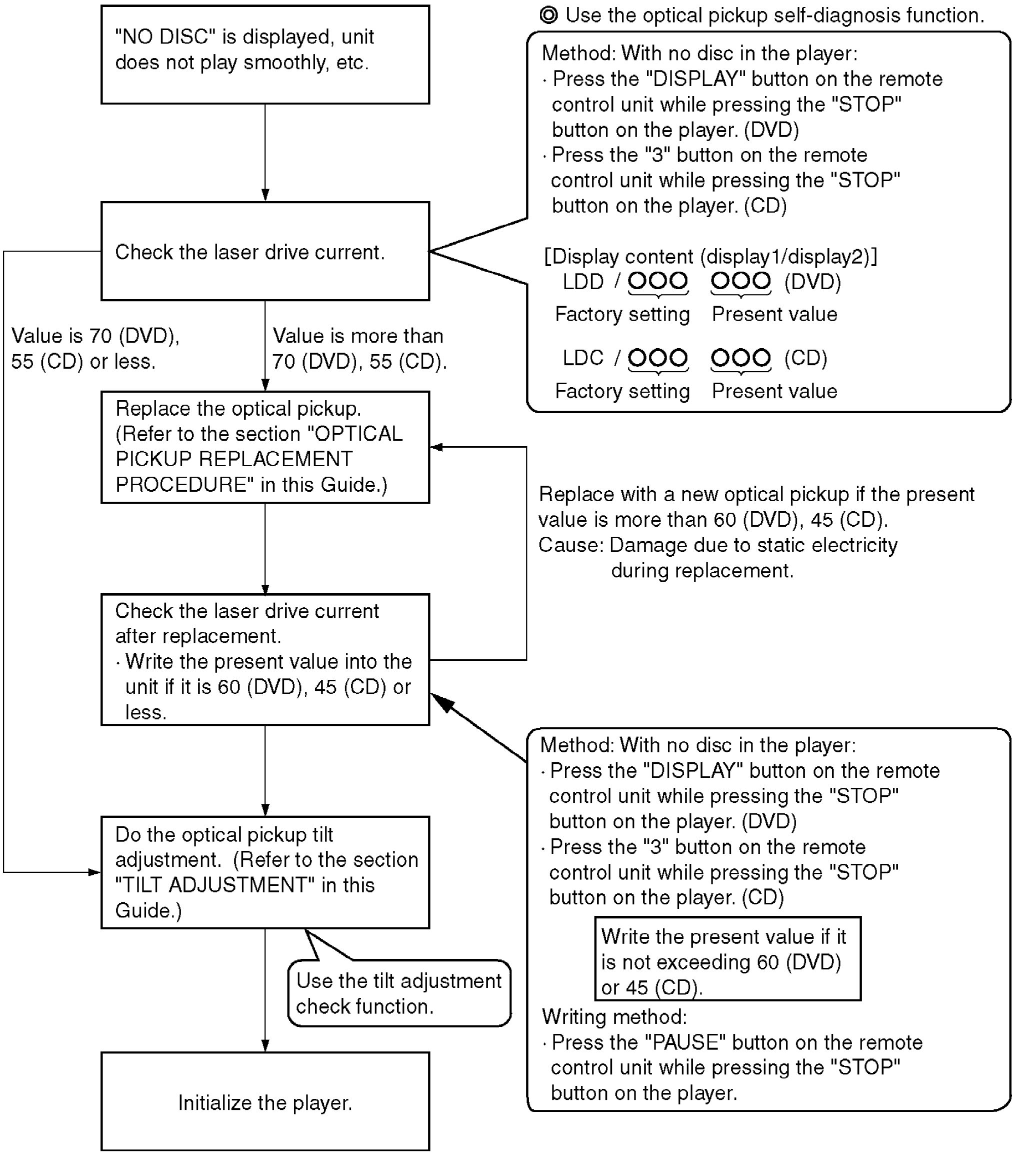
14. Optical Pick-up Self-Diagnosis and Replacement Procedure

14.1. Optical Pickup Breakdown Diagnosis

The optical pickup self-diagnosis function and tilt adjustment check function have been included in this unit. When repairing, use the following procedure for effective Self-diagnosis and tilt adjustment.Be sure to use the self-diagnosis function before replacing the optical pickup when "NO DISC" is displayed. As a guideline, you should replace the optical pickup when the value of the laser drive current is more than 55.

Note:

Press the power button to turn on the power, and check the value within three minutes before the unit warms up. (Otherwise, the result will be incorrect.)


"NO DISC" is displayed, unit does not play smoothly, etc.
Check the laser drive current.
Value is 70 (DVD), 55 (CD) or less.
Value is more than 70 (DVD), 55 (CD).
Replace the optical pickup. (Refer to the section "OPTICAL PICKUP REPLACEMENT PROCEDURE" in this Guide.)
Check the laser drive current after replacement.
· Write the present value into the unit if it is 60 (DVD), 45 (CD) or less.
Do the optical pickup tilt adjustment. (Refer to the section "TILT ADJUSTMENT" in this Guide.)
Use the tilt adjustment check function.
Initialize the player.
◎ Use the optical pickup self-diagnosis function.
Method: With no disc in the player:
· Press the "DISPLAY" button on the remote control unit while pressing the "STOP" button on the player. (DVD)
· Press the "3" button on the remote control unit while pressing the "STOP" button on the player. (CD)
[Display content (display1/display2)]
LDD / OOO OOO (DVD)
Factory setting Present value
LDC / OOO OOO (CD)
Factory setting Present value
Replace with a new optical pickup if the present value is more than 60 (DVD), 45 (CD).
Cause: Damage due to static electricity during replacement.
Method: With no disc in the player:
· Press the "DISPLAY" button on the remote control unit while pressing the "STOP" button on the player. (DVD)
· Press the "3" button on the remote control unit while pressing the "STOP" button on the player. (CD)
Write the present value if it is not exceeding 60 (DVD) or 45 (CD).
Writing method:
· Press the "PAUSE" button on the remote control unit while pressing the "STOP" button on the player.

14.2. Service Mode Table 1

The service modes can be activated by pressing various button combination on the player and remote control unit.

Player buttons	Remote control unit buttons	Application	N
STOP	0	Error code display	(Refer tc “14.3. D' Diagnos Functio Code”).
	5	Tilt adjustment	Refer to “17.4. O adjustm
	6	Area number and broadcasting system check	
	7	Built-in program version check	
	DISPLAY	DVD laser drive current check	Refer to “14.1. O Pickup Breakdo Diagnos
	3	CD laser drive current check	
	PAUSE	Writing of laser drive current value after replacement of optical pickup (Do use this function only when optical pickup is replaced.)	
	≧10	Initialization of the player (factory setting is restored.) Used after replacement of micro-computer and its peripherals and printed circuit board.	

14.3. DVD Self Diagnostic Function-Error Code

Error Code	Error Content	Additional error explanation
	U, H error	
U11	Focus error	
H01	Tray loading error	
H02	Spindle servo error	(Spindle servo, DSC (IC8251) SP motor, CLV servo error)
H03	Traverse servo error	(Traverse motor, IC8251)
H04	Tracking servo error	
H05	Seek error	
H06	Power error	Cannot switch off the power because of the panel and sys computer communication error
H07	Spindle motor drive error	Spindle motor
	DSC related	
F500	DSC error	DSC (IC8251) stops in the occurrence of servo error (startı error, etc.)
F501	DSC not Ready error	DSC-system computer communication error (Communicat caused by idling of DSC)
F502	DSC Time out error	Similar as F500
F503	DSC communication Failure	Communication error (result error occurred although communication command was sent)

Error Code	Error Content	Additional error explanation
F504	Error adjusting DSC data slice offset	
F505	DSC Attention error	Similar as F500
F506	Invalid media	Disc is flipped over, TOC unreadable, incompatible disc m
	ODC related	
F600	Access failure to management information caused by demodulation error	Operation stopped because navigation data is not accessi caused by the demodulation defect
F601	Indeterminate sector ID requested	Operation stopped caused by the request to access abnor data
F602	Access failure to LEAD-IN caused by demodulation error	LEAD IN data unreadable
F603	Access failure to KEYDET caused by demodulation error	Access failure to CSS data of disc
F610	ODC abnormality	No permission for command execution
F611	6626 QCODE don't read Error	Access failure to seek address in CD series
F612	No CRC OK for a specific time	Access failure to ID data in DVD series
F620	Laser safeguard: high temperature condition	
F621	Laser safeguard: circuit failure condition	
F630	No reply to KEY DET enquiry	(for internal use only)
F631	CPPM KEY DET is not available till the FILE terminal	(CPPM file system is unreadable caused by scratches)
F632	CPPM KEY DET is not available	Been revoked or falsified
	Disc code	
F103	Illegal highlight Position	Big possibility of disc specification violation during highli
	HIC Error	
F4FF	Force initialize failure (time out)	
	Micro computer error	
F700	MBX overflow	When replying message to disc manager
F701	Message command does not end	Next message is sent before replying to disc manager
F702	Message command changes	Message is changed before it is sent as a reply to disc ma

Error Code	Error Content	Additional error explanation
F880	Task number is not appropriate	Message coming from a non-existing task
F890	Sending message when message is being sent to AV task	Sending message to AV task
F891	Message couldn’t be sent to AV task	Begin sending message to AV task
F893	FROM falsification	
F894	EEPROM abnormality	
F895	Language area abnormality	Firm version agreement check for factory preset setting fa prevention
F896	No existence model	Firm version agreement check for factory preset setting fa prevention
F897	Initialize is not completed	Initialize completion check for factory preset setting failur prevention
F898	Disagreement of hardware and software	Unsuitable combination of AV DECORDER, SDRAM and Fl (firmware)
F8A0	Message command is not appropriate	Begin sending message to AV task

Note:

An error code will be canceled if a power supply is turned OFF.

***1: CPPM is the copy guard function beforehand written in the disk for protection of copyrights.**

14.4. Service mode table 2

Pressing various button combinations on the player and remote control unit can activate the service modes.

Item	Player mode and button combination	Function	Display	Cancellation method
Jitter check	In STOP (no disc) mode, press STOP button on the player, and "5" button on the remote control unit.	Jitter check Jitter rate is measured and displayed. Measurement is repeatedly done in the cycle of one second. Read error counter starts from zero upon mode setting. When target block data failed to be read out, the counter advances by one increment. When the failure is caused by minor error, it may be corrected when retried to enable successful reading. In this case, the counter advances by one. When the error persists even after retry, the counter may jump by two or more.	J _xxx/yyy_zz (display1/display2) Focus drive value Read error counter Jitter rate Jitter check mode Jitter rate is shown in decimal notation to one place of decimal. Focus drive value is shown in hexadecimal notation.	Press STOP or OPEN button.
Error code check	In STOP (no disc) mode, press STOP button on the player, and "0" button on the remote control unit. * With pointing of cursor up and down on display	Error code check The latest error code stored in EEPROM is displayed.	Error code (play_err) is expressed in the following convention. Error code = 0 x DAXX is expressed: -> DVDnn UXX Error code = 0 x DBXX is expressed: -> DVDnn HXX Error code = 0 x DXXX is expressed: -> DVDnn FXXX Error code = 0 x 0000 is expressed: -> DVDnn F--- * "xx" denotes the error code.	Cancelled automatically 5 seconds later.
Initial setting of laser drive current	In STOP (no disc) mode, press STOP button on the player, and PAUSE button on the remote control unit.	Initial setting of laser drive currentInitial current value for each of DVD laser and CD laser is separately saved in EEPROM.	LDO_/034_028 (display1/display2) CD laser current measurement DVD laser current measurement Laser current measurement mode The value denotes the current in decimal notation. The above example shows the initial current is 34mA and 28mA for DVD laser and CD laser respectively when the laser is switched on.	Cancelled automatically 5 seconds later.
DVD laser drive current measurement	In STOP (no disc) mode, press STOP button on the player, and DISPLAY button on the remote control unit.	DVD laser drive current measurement ·DVD laser drive current is measured and the result is displayed together with the initial value stored in EEPROM. After the measurement, DVD laser emission is kept on. It is turned off when POWER key is switched off. (It is also turned off when POWER button on the player is switched off.)	LDD_/034_032 (display1/display2) Measured current Initial current stored in EEPROM DVD laser current measurement mode The value denotes the current in decimal notation. The above example shows the initial current is 34mA and the measured value is 32mA.	Cancelled automatically 5 seconds later.
ADSC internal RAM data check	In STOP (no disc) mode, press STOP button on the player, and "1" button on the remote control unit.	ADSC internal RAM data check ·ADSC internal RAM data is read out and displayed.	OFA_6901 RAM data for specified address Address The value is shown in hexadecimal notation. The above example shows the data in ADSC address OFAh is 6901h.	Press STOP or PLAY button.
CD laser drive current measurement	In STOP (no disc) mode, press STOP button on the player, and "3" button on the remote control unit.	CD laser drive current measurement CD laser drive current is measured and the result is displayed together with the initial value stored in EEPROM. After the measurement, CD laser emission is kept on. It is turned off when POWER key is switched off. (It is also turned off when POWER button on the player is switched off.)	LDC_/028_026 (display1/display2) Measured current Initial current stored in EEPROM CD laser current measurement mode The value denotes the current in decimal notation. The above example shows the initial current is 28mA and the measured value is 26mA.	Cancelled automatically 5 seconds later.

Item	Player mode and button combination	Function	Display	Cancellation method
Version display	In STOP (no disc) mode, press STOP button on the player, and "7" button on the remote control unit.	Version display	srrr/xxyzzz (display1/display2) System controller release number System controller model number System controller generation Panel controller release number Panel controller model number	Cancelled automatically 5 seconds later.
Initialization	In STOP (no disc) mode, press STOP button on the player , and ≧10 button on the remote control unit.	Initialization User settings are cancelled and player is initialized to factory setting.	--INIT--	——
Area	In STOP (no disc) mode, press STOP button on the player, and "6" button on the remote control unit.	Area number and broadcasting system check	w__xy__zzz Panel controller jumper information N: NTSC / 6: PAL60 N: noPAL / P: PAL Region No.	Cancelled automatically 5 seconds later.
Region and syscon version display	In STOP (no disc) mode, press STOP button on the player, and "8" button on the remote control unit.	Region and syscon display	w_xxyzzz System controller version Destination System controller generation Region	Cancelled automatically 5 seconds later.
Communication error display	In STOP (no disc) mode, press STOP button on the player, and "MENU" button on the remote control unit.	Displays frequency of communication errors between system control IC and mechanism control IC during DVD module.	ER_02_30	Cancelled automatically 5 seconds later.

Item	Player mode and button combination	Function	Display	Cancellation method
Timer 1 check	In STOP (no disc) mode, press STOP button on the player, and "▲" button on the remote control unit.	Timer 1 check Laser operation timer Operation time is measured separately for DVD laser and CD laser.	T1_1234/5678 (display1/display2) Shown to the left is DVD laser time, and to the right CD laser time. Time is shown in 4 digits of decimal notation in a unit of 10 hours. "0000" will follow "9999".	Cancelled automatically 5 seconds later.
Timer 1 reset	While displaying Timer 1 data, press STOP button on the "▼" button on the remote control unit.	Timer 1 reset Laser operation timer Operation time of both DVD laser and CD laser is reset all at once.	T1_0000/0000 (display1/display2)	Cancelled automatically 5 seconds later.
Timer 2 check	In STOP (no disc) mode, press STOP button on the player, and " ▶ " button on the remote control unit.	Timer 2 check Spindle motor operation timer	T2_12345 Time is shown in 5 digits of decimal notation in a unit of 10 hours. "00000" will follow "99999".	Cancelled automatically 5 seconds later.
Timer 2 reset	While displaying Timer 2 data, press STOP button on the player and " ◀ " button on the remote control unit.	Timer 2 reset Spindle motor operation timer	T2_00000	Cancelled automatically 5 seconds later.

14.5. Sales demonstration lock function

This function prevents discs from being lost when the unit is used for sales demonstrations by disabling the disc eject function. "LOCKED" is displayed on the unit, and ordinary operation is disabled.

14.5.1. Setting

- Prohibiting removal of disc

1. **Select the DVD/CD function.**
2. **Press and hold down the ■ button on the player and the power button on the remote controller unit for at least three seconds. (The message, "___LOCKED_" appears when the function is activated.)**

Note:

OPEN/CLOSE ⏏, DISC CHECK and DISC CHANGE buttons are invalid and the player displays

"___LOCKED_" while the lock function mode is entered.

- Prohibiting operation of selector and disk

1. **Select the DVD/CD function.**
2. **Press and hold down the ▶ button on the player and the power button on the remote controller unit for at least three seconds. (The message, "___LOCKED_" appears when the function is activated.)**

Note:
The following buttons are invalid and the player displays "___LOCKED_" while the lock function mode is entered.

Player	⏏, ■, ❚❚, SELECTOR, ▶▶❘, ❘◀◀, VOLUME KNOB, DISC CHECK, DISC CHANGE, DISC1-DISC5
Remote controller unit	SLEEP, REPEAT, 0~9, ≧10, RETURN, TOP MENU, ■, ❚❚, ❘◀◀, ▶▶❘, ◀◀, ▶▶, POSITION MEMORY, TUNER/BAND, D.MIX, CH SELECT/ TEST, SET UP/ MUTING, DISPLAY, GROUP, TV, VCR/ AUX, QUICK REPLAY, SUBTITLE, FL DISPLAY, CH & VOLUME

14.5.2. Cancellation

The lock can be cancelled by the same procedure as used in setting. ("UNLOCK" is displayed on cancellation. Disconnecting the power cable from power outlet does not cancel the lock.)

14.6. Handling After Completing Repairs

Use the following procedure after completing repairs.

14.6.1. Method

Confirm that the power is turned on:

1. **Press the "OPEN/CLOSE" button to close the tray.**
2. **Press the "POWER" button to turn off the power.**
3. **Disconnect the power plug from the outlet.**

14.6.2. Precautions

Do not disconnect the power plug from the outlet with the tray still open, then close the tray manually.

15. Self-Diagnosis Function

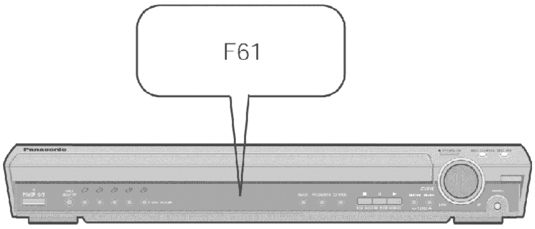
15.1. Automatic Displayed Error / Codes

15.1.1. Automatic Display Function

For a power unit error, the code is automatically displayed.

F61:

Automatically displayed on the LCD of the player.



15.1.2. Re-Display

- For F61 Display

- When the code, F61 is displayed, the power is automatically turned off.

- The code, F61 is displayed for three seconds, and then the current time appears.

- To retrieve the code, turn on the power button so that the code F61 appears, however, is switched to time display after three seconds, and the power is automatically turned off.

15.1.3. Description of Error Code

15.1.3.1. F61

- State, Condition

When the power is turned on, the unit is automatically turned off. The power does not turn on.

- Cause, Troubleshooting

Power circuit system failure and/or direct current flown to speaker terminal / Identify the cause and replace with new parts.

15.2. Memorized Error Codes

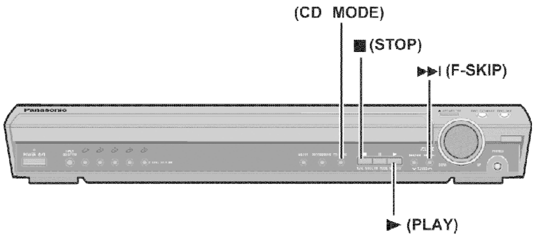
15.2.1. Activating Self-Diagnosis Function and Displaying Method

1. Turn on the power.

2. Select DVD/CD function. With no DVD/CD inserted in the player, press and hold down the F_SKIP ▶▶| button simultaneously for at least two seconds, and press the "CD MODE" button for at least two seconds in order to display "T___________".

3. Press the ■ button. If a memorized error is detected, the result of

self diagnosis is displayed. (Ex.: T H15)(See table below) / If several errors are detected, press the ■ button to display each.



15.2.2. Re-Display

- Press the power button to turn off the power, and then turn on the power.
- The details of self diagnosis are stored in the unit memory. / To retrieve them, follow the procedure described the above, “Activating Self-Diagnosis Function and Displaying Method”.

15.2.3. Deleting Details of Self Diagnosis

- After repair, press and hold down the ■ button for at least five seconds, “_ CLEAR __” appears for a second and then “T________” appears. (Deleting the details of self diagnosis)
- After repairing errors, be sure to delete the details of self diagnosis.

Error Code	State, Condition	Cause, Troubleshooting
H15	The disc tray cannot be opened: it closes spontaneously.	Disc tray open/close detection switch (S failure. / (Check and replace)
H16	The disc tray cannot be closed: it opens spontaneously.	

16. Service Precautions

16.1. Recovery after the DVD player is repaired

- When FLASH ROM IC or DVD module P.C.B. is replaced, carry out the recovery processing to optimize the drive.
  Playback the recovery disk to process the recovery automatically.
- Recovery disc (Product number: RFKZD03R005)
- Performing recovery
  1. Load the recovery disc RFKZD03R005 on to the player and run it.
  2. Recovery is performed automatically. When it is finished, a message appears on the screen.
  3. Remove the recovery disc.

4. Turn off the power.

Note:
This unit requires no initialization process carried out after the traditional DVD players were repaired.
When the recovery measures are taken, the customer setting will return to the factory setting as same as the procedure described in item of "Initialization" in 14.4. is carried out. Write down the contents of the setting before recovery processing, and reset the player.

16.2. Firmware version-up of the DVD player

- The firmware of the DVD player may be renewed to improve the quality including operability and playability to the substandard discs.processing to optimize the drive.
  The recovery disc has also firmware version-up.
- After version-up, recovery processing is executed automatically.
- Part number of the recovery disc for version-up will be noticed when it is supplied.
- Updating firmware

1. Load the recovery disc that is supplied to the player and run it.
2. Firmware version of the player is automatically checked.
   Appropriate message appears whenever necessary.
3. Using remote controller's cursor key, select whether version updating is to be done or not. (Selection of Yes/No)
4. a. If Yes is selected, version updating is performed.
   b. If No is selected, only recovery is performed.
5. a. When updating is finished, remove the disc according to the message appearing on the screen.
   b. Remove the disc according to the message appearing on the screen.
6. Turn off the power.

Note:
If the AC power supply is shut out during version-up due to a power failure, the version-up is improperly carried out.
In such a case, replace the FLASH ROM IC and carry out the version-up again.

17. Adjustment Procedure

17.1. Service Tools and Equipment

Application	Name	Number
Tilt adjustment	DVD test disc	DVDT-S20 [SPG]
	TORX screw driver (T6)	Available on sales route. (T6) or RFKZ0185 [SPG]
Others	Grease	RFKXPG641 [SPG]
Confirmation	CD test disc	PVCD-K06 or any other commercially available disc
	VCD test disc	PVCD-K06 or any other commercially available disc
	Recovery disc	RFKZD03R005 [SPG]

17.2. Important points in adjustment

17.2.1. Important points in optical adjustment

- Before starting optical adjustment, be sure to take anti-static measures.
- Optical pickup tilt adjustment is needed after replacement of the following components.

1. Optical pickup unit
2. Spindle motor unit
3. Optical pickup peripheral parts

Notes
Adjustment is generally unnecessary after replacing other parts of the traverse unit. However, make adjustment if there is a noticeable degradation in picture quality. Optical adjustments cannot be made inside the optical pickup. Adjustment is generally unnecessary after replacing the traverse unit.

17.2.2. Important points in electrical adjustment

- Follow the adjustment procedures described in this manual.

17.3. Storing and handling of test discs

- Surface precision is vital for DVD test discs. Be sure to store and handle them carefully.

1. Do not place discs directly onto the workbench, etc., after use.
2. Handle discs carefully in order to maintain their flatness. Place them into their case after use and store them vertically. Store discs in a cool place where they are not exposed to direct sunlight or air from air conditioners.

3. **Accurate adjustment will not be possible if the disc is warped when placed on a surface made of glass, etc. If this happens, use a new test disc to make optical adjustments.**
4. **If adjustment is done using a warped disc, the adjustment will be incorrect and some discs will not be playable.**

17.4. Optical adjustment

17.4.1. Optical pickup tilt adjustment

Measurement point	Adjustment point	Mode	Disc
	Tangential adjustment screw Tilt adjustment screw	T01 (inner periphery) play T30 (center periphery) T43 (outer periphery) play	DVDT-S20 [SPG]
Measuring equipment		Adjustment value	
None (Main unit display for servicing is used.)		Adjust to the minimum jitter value.	

17.4.1.1. Adjustment procedure

1. **While pressing STOP button on the main unit, press "5" on the remote control unit.**
2. **Confirm that "J_xxx/yyy_zz" (display1/display2) is shown on the front display.**

For your information:
"yyy" and "zz" shown to the right have nothing to do with the jitter value. "yyy" is the error counter, while "zz" is the focus drive value.

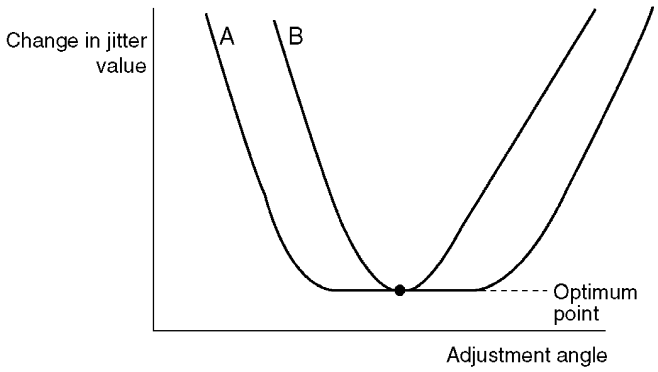
Note:
Jitter value appears on the front display.

3. **Play test disc T30 (center periphery).**
4. **Adjust tangential adjustment screw so that the jitter value is minimized.**
5. **Play test disc T30 (center periphery).**
6. **Adjust tilt adjustment screw 1 so that the jitter value is minimized.**
7. **Play test disc T30 (center periphery).**
8. **Adjust tilt adjustment screw 2 so that the jitter value is minimized.**

9. **Repeat adjusting tilt adjustment screws 1 and 2 alternately until the jitter value is minimized.**

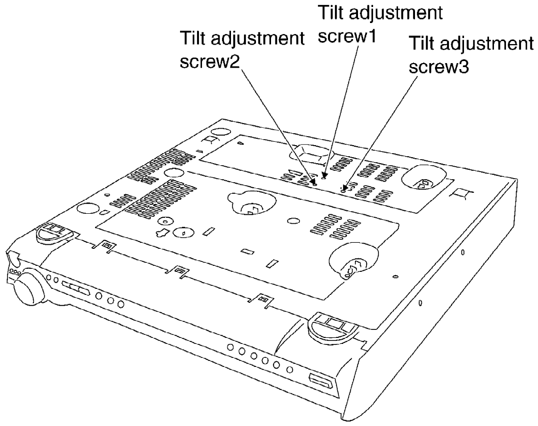
17.4.1.2. Important points

1. **Make tangential adjustment first, and then make tilt adjustment.**
2. **Repeat adjusting two or three times to find the optimum point.**
3. **Finish the procedure with tilt adjustment.**



Jitter value depends on the model:

1. **If the jitter value changes like B, the optimum point is easy to find.**
2. **If the jitter value changes like A, set the optimum point near the middle.**



17.4.1.3. Check after adjustment

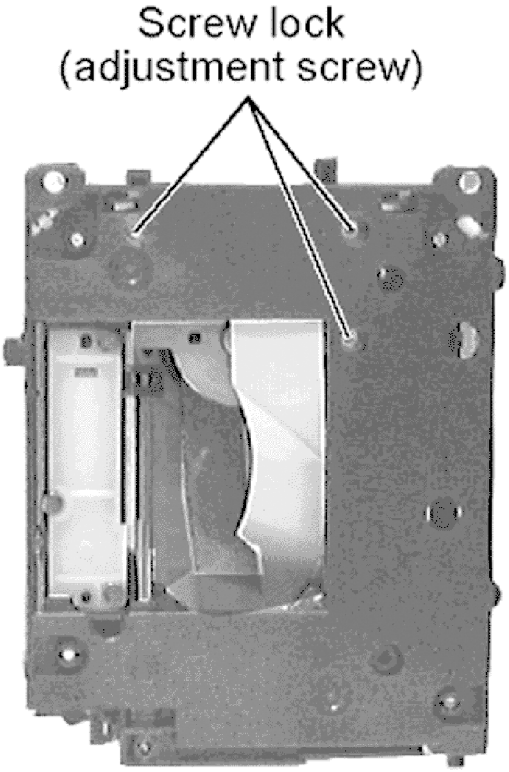
Play test disc or any other disc to make sure there is no picture degradation in the inner, middle and outer peripheries, and no audio skipping. After adjustment is finished, lock each adjustment screw in position using screw lock.

17.4.1.4. Procedure for screw lock

1. **After adjustment, remove top cover, tray, clamper base and traverse unit in this sequence.**
2. **Lay the traverse unit upside down, and fix adjustment screw with**

screw lock.

3. After fixing, reassemble traverse unit, clamper base, tray and top cover.


Screw lock
(adjustment screw)

18. Abbreviations

INITIAL/LOGO		ABBREVIATIONS
A	A0~UP ACLK AD0~UP ADATA ALE AMUTE AREQ ARF ASI ASO ASYNC	ADDRESS AUDIO CLOCK ADDRESS BUS AUDIO PES PACKET DATA ADDRESS LATCH ENABLE AUDIO MUTE AUDIO PES PACKET REQUEST AUDIO RF SERVO AMP INVERTED INPUT SERVO AMP OUTPUT AUDIO WORD DISTINCTION SYNC
B	BCK BCKIN BDO BLKCK BOTTOM BYP BYTCK	BIT CLOCK (PCM) BIT CLOCK INPUT BLACK DROP OUT SUB CODE BLOCK CLOCK CAP. FOR BOTTOM HOLD BYPATH BYTE CLOCK
C	CAV CBDO CD CDSCK CDSRDATA CDRF CDV CHNDATA CKSL CLV COFTR CPA CPCS CPDT CPUADR CPUADT CPUIRQ CPRD CPWR CS CSYNCIN CSYNCOUT	CONSTANT ANGULAR VELOCITY CAP. BLACK DROP OUT COMPACT DISC CD SERIAL DATA CLOCK CD SERIAL DATA CD RF (EFM) SIGNAL COMPACT DISC-VIDEO CHANNEL DATA SYSTEM CLOCK SELECT CONSTANT LINEAR VELOCITY CAP. OFF TRACK CPU ADDRESS CPU CHIP SELECT CPU DATA CPU ADDRESS LATCH CPU ADDRESS DATA BUS CPU INTERRUPT REQUEST CPU READ ENABLE CPU WRITE ENABLE CHIP SELECT COMPOSITE SYNC IN COMPOSITE SYNC OUT

INITIAL/LOGO		ABBREVIATIONS
D	DACCK	D/A CONVERTER CLOCK
	DEEMP	DEEMPHASIS BIT ON/OFF
	DEMPH	DEEMPHASIS SWITCHING
	DIG0~UP	FL DIGIT OUTPUT
	DIN	DATA INPUT
	DMSRCK	DM SERIAL DATA READ CLOCK
	DMUTE	DIGITAL MUTE CONTROL
	DO	DROP OUT
	DOUT0~UP	DATA OUTPUT
	DRF	DATA SLICE RF (BIAS)
	DRPOUT	DROP OUT SIGNAL
	DREQ	DATA REQUEST
	DRESP	DATA RESPONSE
	DSC	DIGITAL SERVO CONTROLLER
	DSLF	DATA SLICE LOOP FILTER
	DVD	DIGITAL VIDEO DISC

INITIAL/LOGO		ABBREVIATIONS
E	EC	ERROR TORQUE CONTROL
	ECR	ERROR TORQUE CONTROL REFERENCE
	ENCSEL	ENCODER SELECT
	ETMCLK	EXTERNAL M CLOCK (81MHz/40.5MHz)
	ETSCLK	EXTERNAL S CLOCK (54MHz)
F	FBAL	FOCUS BALANCE
	FCLK	FRAME CLOCK
	FE	FOCUS ERROR
	FFI	FOCUS ERROR AMP INVERTED INPUT
	FEO	FOCUS ERROR AMP OUTPUT
	FG	FREQUENCY GENERATOR
	FSC	FREQUENCY SUB CARRIER
	FSCK	FS (384 OVER SAMPLING) CLOCK
G	GND	COMMON GROUNDING (EARTH)
H	HA0~UP	HOST ADDRESS
	HD0~UP	HOST DATA
	HINT	HOST INTERRUPT
	HRXW	HOST READ/WRITE

INITIAL/LOGO		ABBREVIATIONS
I	IECOUT	IEC958 FORMAT DATA OUTPUT
	IPFRAG	INTERPOLATION FLAG
	IREF	I (CURRENT) REFERENCE
	ISEL	INTERFACE MODE SELECT
L	LDON	LASER DIODE CONTROL
	LPC	LASER POWER CONTROL
	LRCK	L CH/R CH DISTINCTION CLOCK
M	MA0~UP	MEMORY ADDRESS
	MCK	MEMORY CLOCK
	MCKI	MEMORY CLOCK INPUT
	MCLK	MEMORY SERIAL COMMAND CLOCK
	MDATA	MEMORY SERIAL COMMAND DATA
	MDQ0~UP	MEMORY DATA INPUT/OUTPUT
	MDQM	MEMORY DATA I/O MASK
	MLD	MEMORY SERIAL COMMAND LOAD
	MPEG	MOVING PICTURE EXPERTS GROUP
O	ODC	OPTICAL DISC CONTROLLER
	OFTR	OFF TRACKING
	OSCI	OSCILLATOR INPUT
	OSCO	OSCILLATOR OUTPUT
	OSD	ON SCREEN DISPLAY
P	P1~UP	PORT
	PCD	CD TRACKING PHASE DIFFERENCE
	PCK	PLL CLOCK
	PDVD	DVD TRACKING PHASE DIFFERENCE
	PEAK	CAP. FOR PEAK HOLD
	PLLCLK /	CHANNEL PLL CLOCK
	PLLOK	PLL LOCK
	PWMCTL	PWM OUTPUT CONTROL
	PWMDA	PULSE WAVE MOTOR DRIVE A
	PWMOA, B	PULSE WAVE MOTOR OUT A, B

INITIAL/LOGO		ABBREVIATIONS
R	RE	READ ENABLE
	RFENV	RF ENVELOPE
	RFO	RF PHASE DIFFERENCE OUTPUT
	RS	(CD-ROM) REGISTER SELECT
	RSEL	RF POLARITY SELECT
	RST	RESET
	RSV	RESERVE
S	SBI0, 1	SERIAL DATA INPUT
	SBO0	SERIAL DATA OUTPUT
	SBT0, 1	SERIAL CLOCK
	SCK	SERIAL DATA CLOCK
	SCKR	AUDIO SERIAL CLOCK RECEIVER
	SCL	SERIAL CLOCK
	SCLK	SERIAL CLOCK
	SDA	SERIAL DATA
	SEG0~UP	FL SEGMENT OUTPUT
	SELCLK	SELECT CLOCK
	SEN	SERIAL PORT ENABLE
	SIN1, 2	SERIAL DATA IN
	SOUT1, 2	SERIAL DATA OUT
	SPDI	SERIAL PORT DATA INPUT
	SPDO	SERIAL PORT DATA OUTPUT
	SPEN	SERIAL PORT R/W ENABLE
	SPRCLK	SERIAL PORT READ CLOCK
	SPWCLK	SERIAL PORT WRITE CLOCK
	SQCK	SUB CODE Q CLOCK
	SQCX	SUB CODE Q DATA READ CLOCK
	SRDATA	SERIAL DATA
	SRMADR	SRAM ADDRESS BUS
	SRMDT0~7	SRAM DATA BUS 0~7
	SS	START/STOP
	STAT	STATUS
	STCLK	STREAM DATA CLOCK
	STD0~UP	STREAM DATA
	STENABLE	STREAM DATA INPUT ENABLE
	STSEL	STREAM DATA POLARITY SELECT
	STVALID	STREAM DATA VALIDITY
	SUBC	SUB CODE SERIAL
	SBCK	SUB CODE CLOCK
	SUBQ	SUB CODE Q DATA
	SYSCLK	

		SYSTEM CLOCK

INITIAL/LOGO		ABBREVIATIONS
T	TE	TRACKING ERROR
	TIBAL	BALANCE CONTROL
	TID	BALANCE OUTPUT 1
	TIN	BALANCE INPUT
	TIP	BALANCE INPUT
	TIS	BALANCE OUTPUT 2
	TPSN	OP AMP INPUT
	TPSO	OP AMP OUTPUT
	TPSP	OP AMP INVERTED INPUT
	TRCRS	TRACK CROSS SIGNAL
	TRON	TRACKING ON
	TRSON	TRAVERSE SERVO ON

INITIAL/LOGO		ABBREVIATIONS
V	VBLANK	V BLANKING
	VCC	COLLECTOR POWER SUPPLY VOLTAGE
	VCDCONT	VIDEO CD CONTROL (TRACKING BALANCE)
	VDD	DRAIN POWER SUPPLY VOLTAGE
	VFB	VIDEO FEED BACK
	VREF	VOLTAGE REFERENCE
	VSS	SOURCE POWER SUPPLY VOLTAGE
W	WAIT	BUS CYCLE WAIT
	WDCK	WORD CLOCK
	WEH	WRITE ENABLE HIGH
	WSR	WORD SELECT RECEIVER

INITIAL/LOGO		ABBREVIATIONS
X	X	X' TAL
	XALE	X ADDRESS LATCH ENABLE
	XAREQ	X AUDIO DATA REQUEST
	XCDROM	X CD ROM CHIP SELECT
	XCS	X CHIP SELECT
	XCSYNC	X COMPOSITE SYNC
	XDS	X DATA STROBE
	XHSYNCO	X HORIZONTAL SYNC OUTPUT
	XHINT	XH INTERRUPT REQUEST
	XI	X' TAL OSCILLATOR INPUT
	XINT	X INTERRUPT
	XMW	X MEMORY WRITE ENABLE
	XO	X' TAL OSCILLATOR OUTPUT
	XRE	X READ ENABLE
	XSRMCE	X SRAM CHIP ENABLE
	XSRMOE	X SRAM OUTPUT ENABLE
	XSRMWE	X SRAM WRITE ENABLE
	XVCS	X V-DEC CHIP SELECT
	XVDS	X V-DEC CONTROL BUS STROBE
	XVSYNCO	X VERTICAL SYNC OUTPUT

19. Voltage Chart

19.1. DVD Module P.C.B.

19.2. Main P.C.B.

19.3. FL P.C.B.

19.4. Loading Motor P.C.B., Tray Motor P.C.B., Sensor P.C.B.

20. Wave Form Chart

21. Schematic Diagram Notes

- This schematic diagram may be modified at any time with the development of new technology.

Notes:

S6801:

Play and memory switch (▶ Memory).

S6802:

R. skip, search and Tuning switch (⏮/⏪/ TUNING ∨).

S6803:
F. skip, search and Tuning switch (⏭/⏩/ TUNING ∧).

S6804:
Pause and FM mode switch (⏸ FM MODE).

S6805:
Tray open / close switch (⏏ Open / Close).

S6806:
Disc skip switch (DISC SKIP).

S6807:
Disc exchange switch (DISC EXCHANGE).

S6808:
Stop and TUNE mode switch (■ TUNE MODE).

S6900:
Standby / on switch (POWER ⏻/I).

S6901:
Source select switch (INPUT SELECTOR).

S6902-S6906:
Disc switch (DISC1-DISC5).

S6907:
Harmonic bass switch (H.BASS).

S6909:
Progressive out switch (PROGRESSIVE).

S6910:
CD mode switch [CD MODE].

S9001:
Loading switch.

VR6800:
Volume control.

- **Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.**
- **Important safety notice:**
  Components identified by ⚠ mark have special characteristics important for safety.
  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
  When replacing any of components, be sure to use only manufacturer´s specified parts shown in the parts list.
- **The supply part number is described alone in the replacement parts list.**
- **Voltage and signal line**

━━➤━━
: +B Signal line

▨➤
: CD-DA signal line

⇨
: Main signal line

▨▨⇨
: DVD (Video) signal line

▨⇨
: DVD (Audio) signal line

➡
: FM/AM signal line

▬ ➤ ▬
: -B Signal line

Caution!

IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.

Cover the parts boxes made of plastics with aluminum foil.
Ground the soldering iron.
Put a conductive mat on the work table.
Do not touch the legs of IC or LSI with the fingers directly.

22. Block Diagram

23. Schematic Diagram

24. Printed Circuit Board Diagram

25. Wiring Connection Diagram

26. Illustration of IC’s, Transistors and Diodes

27. Terminal Function of ICs

27.1. IC2018 (MN101C49GHB): Operation CPU

Pin No.	Terminal Name	I/O	Function
1	AVSS	-	Power supply for A/D converter
2	KEY1	I	Key 1 line input
3	DES1	I	Tuner region setting signal input
4	DES2	I	Model select signal input
5	DES3	I	DVD region setting signal input
6	KEY2	I	Key 2 line input
7	DISC SENSE	I	Disc sensor signal input
8	N.C	-	No connecting (GND)
9	N.C	-	No connecting (GND)
10	AVCC	-	+ Power supply for A/D converter
11	VCC	-	Power supply terminal (5V)
12	XOUT	-	Main clock output (8.0MHz)
13	XIN	-	Main clock input (8.0MHz)
14	VSS	-	GND
15	XI	-	GND
16	XO	-	Not used, open
17	MMOD	-	GND
18	DVD CMD	O	DVD command signal output

Pin No.	Terminal Name	I/O	Function
19	DVD STA	I	DVD status signal input
20	DVD CK	I	DVD clock signal input
21	FLD RST	O	FL Driver Reset signal output
22	SBI2	-	No connection (OPEN)
23	EDA	I/O	EEPROM data in/output
24	ECK	O	EEPROM clock output
25	ECS	O	EEPROM latch output
26	RMT	I	Remote control input
27	LOAD	I	UP/DOWN switch signal input
28	OPEN SW	I	Rotary tray OPEN switch signal input
29	POS SW	I	Position detection sensor signal input
30	PULSE	I	Speed detection sensor signal input
31	SYNC	I	AC failure detection input
32	VPP	-	Power supply for Flash
33	RESET	I	System reset signal input
34	PWM	O	Pulse width modulation output for the changer
35	WIDE1	-	Not used
36	N.C	-	Not used
37	MUTE_S	O	Mute signal output for surround Audio signal
38	MUTE_ / DVD	I	Signal output from DVD module control mute circuit
39	ASP_DA	O	ASP data output
40	ASP_CK	O	ASP clock output
41	VPP	-	Power supply for Flash
42	SS_DATA	O	Surround data output
43	MUTE_C	O	Mute signal output for Center speaker
44	SS_CLK	O	Surround clock output
45	N.C	-	Not used, open
46	DSP_CS	-	Not used, open
47	N.C	-	Not used, open
48	N.C	-	Not used
49	SURR FC2	-	Surround Frequency Limiter
50	N.C	-	Not used, open
51	MUTE F	O	Mute signal output for Front speaker

Pin No.	Terminal Name	I/O	Function
52	MUTE SW	O	Mute signal output for Subwoofer
53	N.C	-	Not used, open
54	N.C	-	Not used, open
55	MUTE L	O	Mute signal output for the line output
56	N.C	-	Not used, open
57	N.C	-	Not used, open
58	N.C	-	Not used, open
59	MUTE_HP	O	Mute signal output for Headphone
60	N.C	-	Not used
61	TU_SD	I	Tuner signal detect input
62	TU_ST/ DO	I	Stereo indicator from Tuner/ DO output of Tuner IC
63	TU_SCL (PLL CK)	O	Clock output for Tuner
64	TU_SDA (PLL DA)	O	Data output for Tuner
65	FM_DET	I	Tuner FM detect signal input
66	RF_DET	I	RF detect input (Wireless ready)
67	RF_ LINK	I	RF power control input (Wireless ready)
68	DVD_ / PCNT	O	Control signal output for the power for the DVD module
69	N.C	-	Not used, open
70	PCONT	O	Control signal output for the power control relay
71	MUTE_H	O	Mute signal output for HIC amplifier
72	DC_DET	I	DC detection signal input
73	HB_MUTE	O	Mute signal output for Harmonic bass
74	N.C	-	Not used, open
75	JOG_B	I	Volume jog B signal input
76	JOG_A	I	Volume jog A signal input
77	JOG_LED	O	Volume Jog LED control signal output
78	RF_ / PCONT	O	Control signal output for the RF power
79	N.C	-	Not used, open
80	N.C	-	Not used, open

Pin No.	Terminal Name	I/O	Function
81	N.C	-	Not used, open
82	DISC5_ / LED	O	Disc 5 LED control signal output
83	DISC4_ / LED	O	Disc 4 LED control signal output
84	DISC3_ / LED	O	Disc 3 LED control signal output
85	DISC2_ / LED	O	Disc 2 LED control signal output
86	DISC1_ / LED	O	Disc 1 LED control signal output
87	N.C	-	Not used
88	N.C	-	Not used, open
89	N.C	-	Not used, open
90	N.C	-	Not used, open
91	FL_CS	O	FL driver latch output
92	FL_CK	O	FL driver clock output
93	FL_DAT	O	Data input for the FL driver
94	LOAD_ / REV	O	Reverse control signal output for OPEN/CLOSE motor
95	VSS	-	Power supply for D/A converter (GND)
96	LOAD_ / FWD	O	Forward control signal output for OPEN/CLOSE motor
97	TURN_ / FWD	O	Forward control signal output for turn motor
98	TURN_ / REW	O	Reverse control signal output for turn motor
99	NC	-	Not used, open
100	VDD	-	+ Power supply for D/A converter

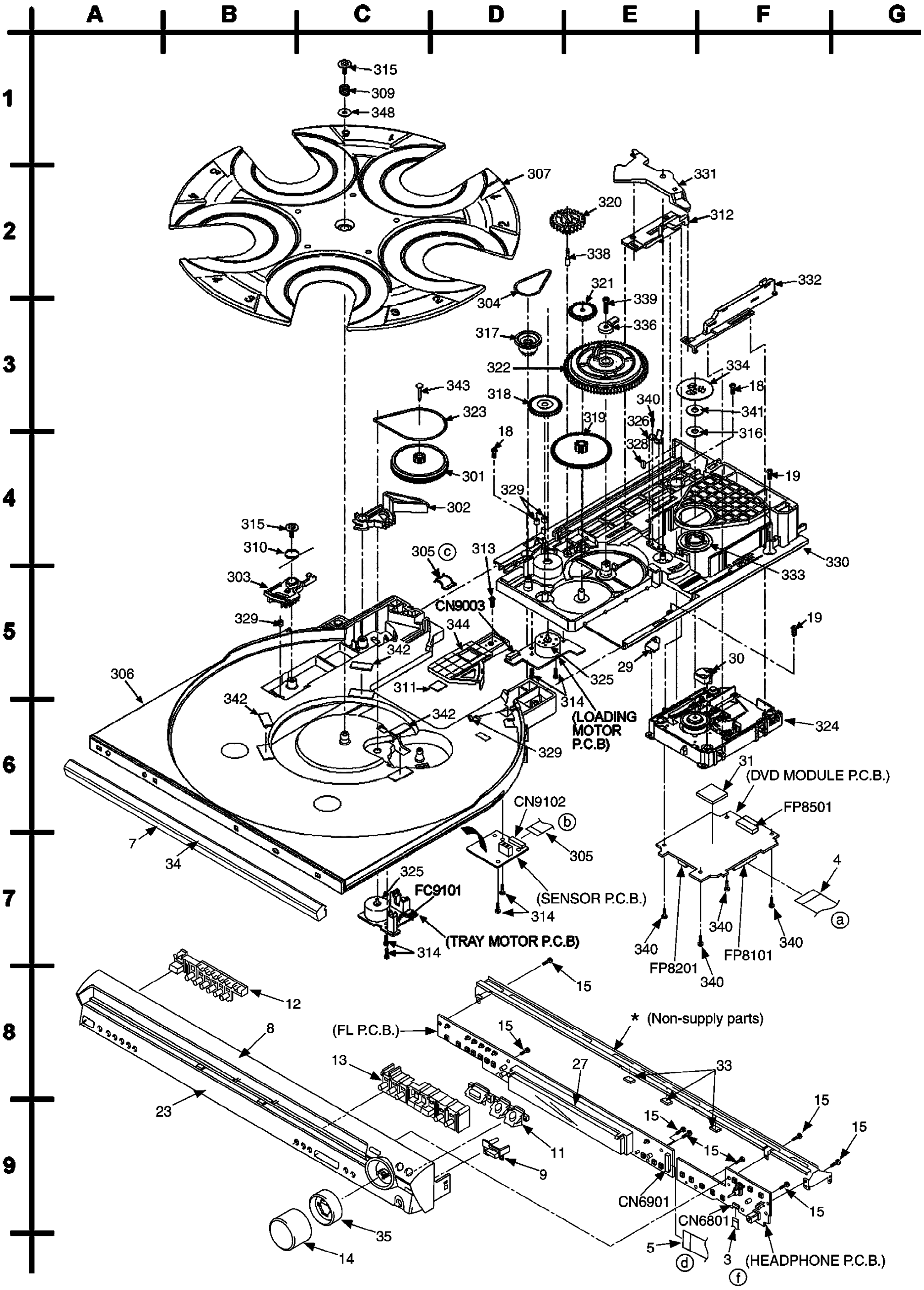
28. Parts Location and Replacement Parts List

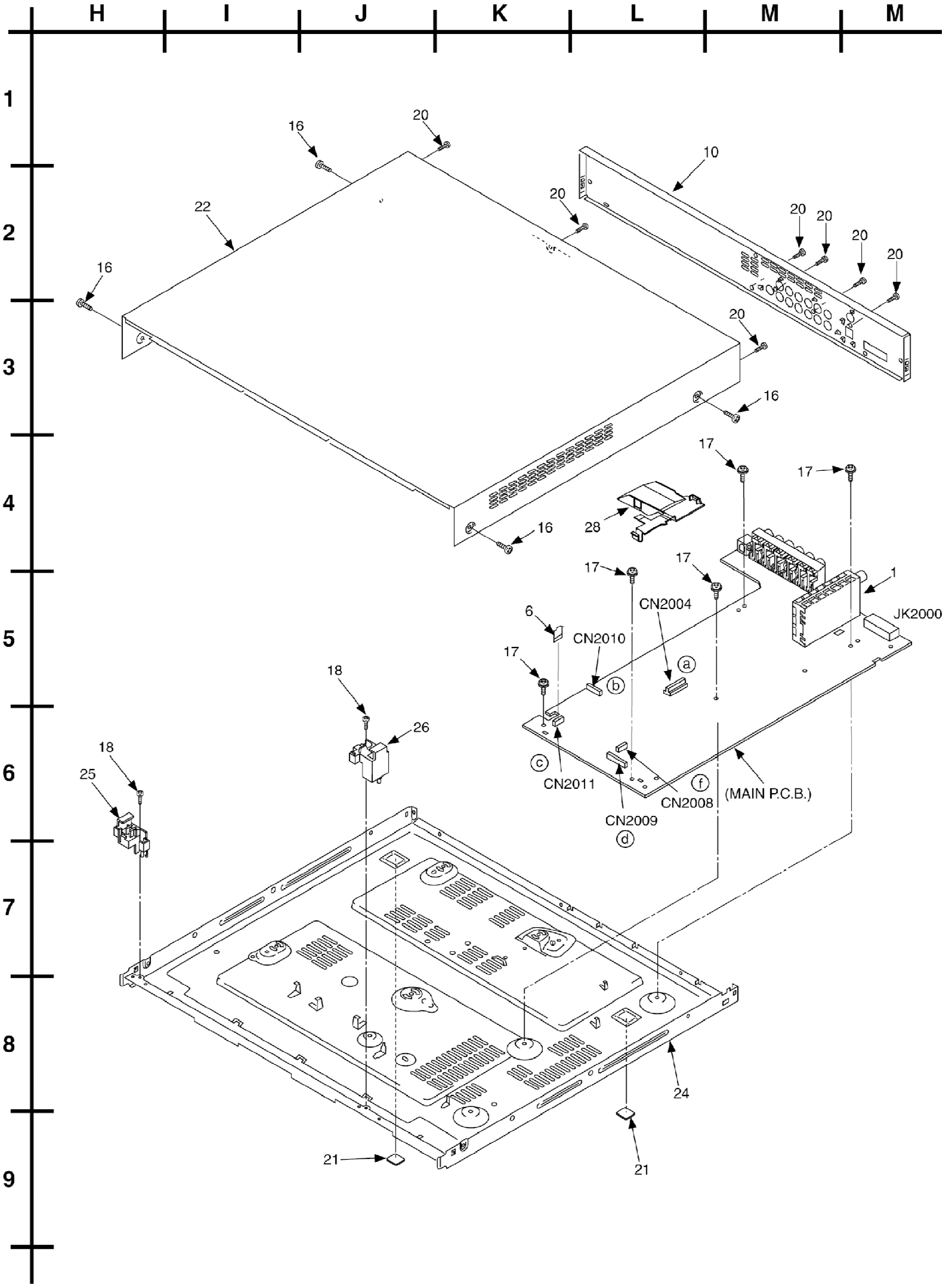
Notes:
***Important safety notice:**
Components identified by ⚠ mark have special characteristics important for safety purpose. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacture’s specified parts shown in the parts list.
***Warning: This product uses a laser diode. Refer to caution statements.**
***Capacity values are in microfarads (µ F) unless specified otherwise, P=Pico-farads (pF), F= Farads (F).**

***Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM), 1M=1,000K (OHM).**
***The parenthesized indications in the Remarks columns specify the model names and areas. (Refer to the cover page)**
***The marking (RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.**
***Reference for O/I book languages are as follows:**
[En: English, Cn: Chinese, Ar: Arabic]
***[M] indicates in the Remarks columns indicates parts supplied by PAVCSG.**
***[SPG] indicates in the Remarks columns indicates parts supplied by SPG [PAVC].**

28.1. Loading Mechanism, Traverse Unit & Cabinet

28.1.1. Loading Mechanism, Traverse Unit & Cabinet Parts Location


A
B
C
D
E
F
G
305 ⓒ
CN9003
(LOADING MOTOR P.C.B)
(DVD MODULE P.C.B.)
CN9102
FP8501
ⓑ
FC9101
(SENSOR P.C.B.)
ⓐ
(TRAY MOTOR P.C.B)
FP8101
FP8201
* (Non-supply parts)
(FL P.C.B.)
CN6901
CN6801
ⓓ
ⓕ
(HEADPHONE P.C.B.)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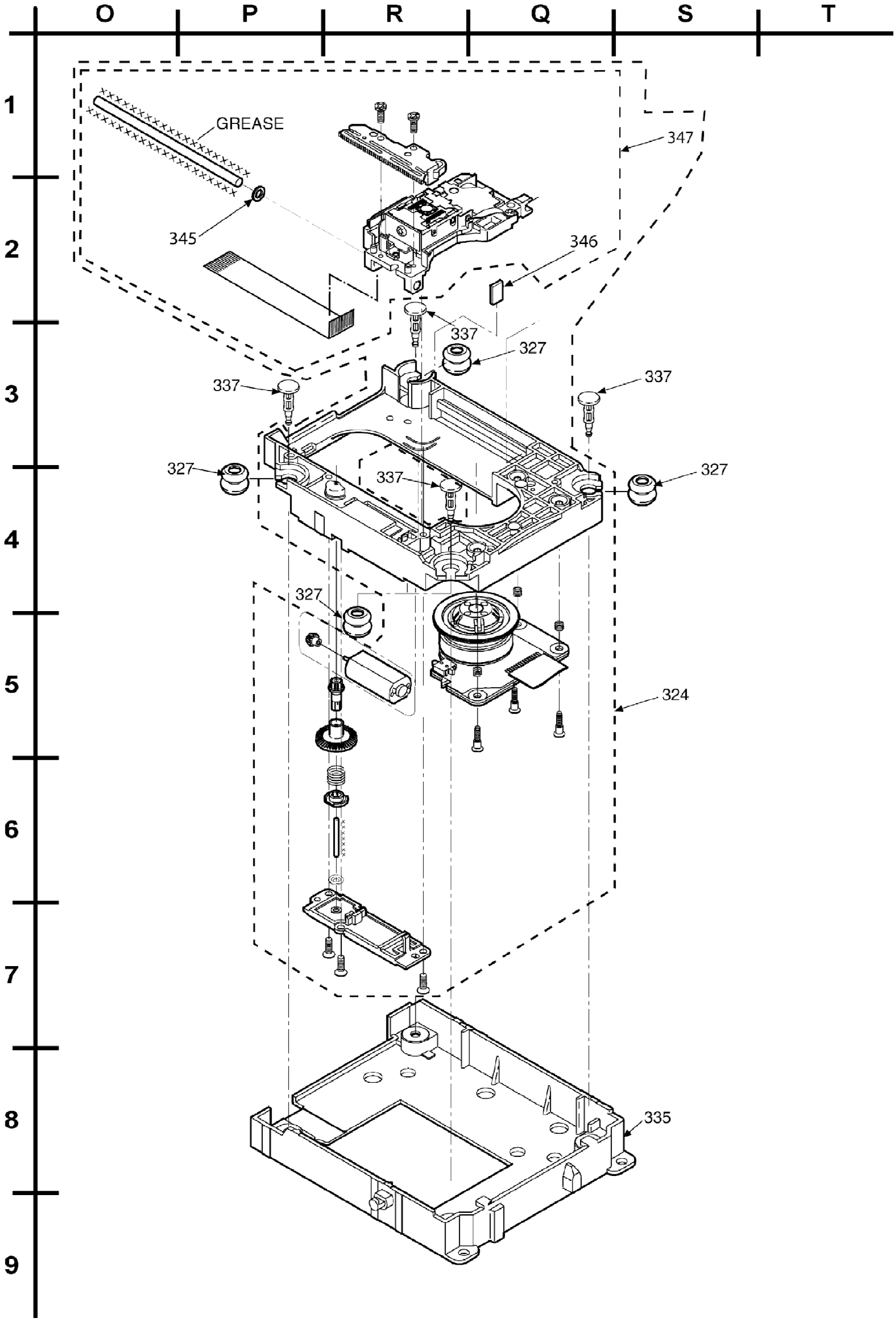
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28.1.2. Traverse and Cabinet Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	J3CCBB000004	TUNER PACK	[M]
3	REEX0420	10P FFC WIRE	[M]
4	REEX0421	50P FFC WIRE	[M]
5	REEX0422	19P FFC (FL-MAIN)	[M]
6	REZ1483	11P FFC (MECHA BASE)	[M]
7	RGKX0311-S	TRAY LID	[M]
8	RGPX0177B-S1	FRONT PANEL	[M]
9	RGQX0025-Q	SENSOR WINDOW	[M]
10	RGRX0045D-A	REAR PANEL	[M]
11	RGUX0622-S	OPEN/CLASE BUTTON	[M]
12	RGUX0623-S	POWER BUTTON	[M]
13	RGUX0624-S	OPERATION BUTTON	[M]
14	RGWX0076-S	VOLUME KNOB	[M]
15	RHD26046	SCREW	[M]
16	RHD30007-1SJ	SCREW	[M]
17	RHD30090-1	SCREW	[M]
18	RHD30102-1	SCREW	[M]
19	RHD30107-1	SCREW	[M]
20	RHD30119-S	SCREW	[M]
21	RKA0059-K	LEG RUBBER	[M]
22	RKMX0111-S	TOP CABINET	[M]
23	RKWX0249A-Q	FL ORNAMENT	[M]
24	RMKX0103	BOTTOM CHASSIS	[M]
25	RMN0730	TRAY GUIDE L	[M]
26	RMN0731	TRAY GUIDE R	[M]
27	RMNX0149	FL HOLDER	[M]
28	RMVX0085	CHASSIS COVER	[M]
29	RMX0274	TRAY SUPPORT R	[M]
30	RMX0275	TRAY SUPPORT L	[M]
31	RMX0290	PLASTIC SHEET	[M]
33	RKAX0026-K	RUBBER CUSHION	[M]
34	RKWX0250-Q1	TRAY LID ORNAMENT	[M]
35	RMRX0052-Q	LIGHTING RING	[M]
		TRAVERSE DECK	
301	RDG0567	PULSE GEAR	[M]
302	RDG0568	OPEN LOCK GEAR	[M]
303	RDG0569	CLOSE LOCK GEAR	[M]
304	RDV0073	TRAY BELT	[M]
305	REZ1484	11P FFC	[M]
306	RGQ0358-K	TRAY BASE	[M]
307	RGQ0359-K	ROTARY TRAY	[M]
309	RMB0365	TRAY SPRING	[M]
310	RME0384	CLOSE LOCK GEAR SPRING	[M]
311	RMF0324	BLOCK SHEET	[M]
312	RMM0255	SLIDE PLATE L	[M]
313	XTB3+10JFJ	SCREW	[M]
314	XTN26+8GFJ	SCREW	[M]
315	XTWS3+10SFJ	SCREW	[M]
316	JSM0048	MAGNET	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
317	RDG0562	PULLEY GEAR	[M]
318	RDG0563	RELAY GEAR A	[M]
319	RDG0564	RELAY GEAR B	[M]
320	RDG0565	DRIVE GEAR A	[M]
321	RDG0566	DRIVE GEAR B	[M]
322	RDG0570	CAM GEAR	[M]
323	RDV0072	LOADING BELT	[M]
324	RAE2012Z-S	DU69U TRAVERSE	[M]
325	REM0112	LOADING MOTOR ASS’Y	[M]
326	RMC0387	SUPPORT SPRING	[M]
327	RMG0598-A	FLOATING RUBBER	[M]
328	RMG0615-K	CUSHION SHEET	[M]
329	RMG0620-K	CUSHION RUBBER	[M]
330	RMK0555	MECHA BASE	[M]
331	RML0646	CHANGE LEVER	[M]
332	RMM0254	SLIDE PLATE R	[M]
333	RMR1446-X	CLAMPER	[M]
334	RMR1447-X	MAGNET HOLDER	[M]
335	RMR1596-X2	MIDDLE CHASSIS	[M]
336	RMR1507-X	SUPPORT PIECE	[M]
337	RMS0789	FIXED PIN	[M]
338	RMS0802-J	DRIVE GEAR SHAFT	[M]
339	XTN26+14JFJK	SCREW	[M]
340	XTV2+6GFJ	PCB SCREW	[M]
341	XWG6FFY	WASHER	[M]
342	RMF0182	TRAY FELT	[M]
343	RMS0123-1	FIXED PIN B	[M]
344	RMM0256	BLOCK BASE	[M]
345	RMG0617-H	CUSHION RUBBER A	[M]
346	RMG0618-H	CUSHION RUBBER B	[M]
347	RXQ1252	DVD OPU CUB ASS’Y	[M]
348	RMX0247	WASHER	[M]

28.2. Component Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PRINTED CIRCUIT BOARDS	
	REP3867B	DVD MODULE P.C.B	[M] (RTL)
	REPX0451B	MAIN P.C.B	[M] (RTL) GS
	REPX0451D	MAIN P.C.B	[M] (RTL) GC
	REPX0455A	FL P.C.B	[M] (RTL)
	REPX0455A	HEADPHONE P.C.B	[M] (RTL)
	REP3465A	LOADING MOTOR P.C.B	[M] (RTL)
	REP3466A	TRAY MOTOR P.C.B	[M] (RTL)
	REP3466A	SENSOR P.C.B	[M] (RTL)
		INTEGRATED CIRCUITS	
IC2006	C9ZB00000466	IC VIDEO BUFFER	[M]
IC2007	C0GAG0000007	IC CHANGER MOTOR DRIVE	[M]
IC2008	C0GAG0000007	IC CHANGER MOTOR DRIVE	[M]
IC2010	C0ABBB000118	IC BUFFER AMP	[M]
IC2011	C1BB00000845	IC ASP	[M]
IC2013	C0AABB000125	IC HP AMP	[M]
IC2014	C1BB00000979	IC ANALOG SURROUND	[M]
IC2015	C0ABBB000118	IC BUFFER AMP	[M]
IC2018	MN101C49GHB	IC MICRO-PROCESSOR	[M]
IC2601	C0ABCB000052	IC BUFFER AMP	[M]
IC2602	C0ABBB000118	IC BUFFER AMP	[M]
IC2801	C0DAAZG00012	IC 5V REGULATOR	[M]
IC2802	C0CBADG00023	IC DC-DC CONVERTER	[M]
IC2803	C0DBEZG00021	IC REGULATOR	[M]
IC6901	C0HBB0000044	IC DISPLAY	[M]
IC8001	MN2DS0003APH	IC DV2.1 LSI	[M]
IC8051	C3ABPG000133	IC 64M SDRAM	[M]
IC8111	C0CBCBD00018	IC POWER SUPPLY	[M]
IC8251	C0GBG0000048	IC MOTOR DRIVER	[M]
IC8421	C0FBBK000050	IC AUDIO DAC	[M]
IC8601	C0EBE0000384	IC VOLTAGE DETECTING	[M]
IC8606	C0EBA0000031	IC RESET	[M]
IC8651	RFKWMH82H160	IC 16M FLASH ROM	[SPG]
IC8691	C0JBAA000346	IC LOGIC	[M]
IC8695	C0JBAA000346	IC LOGIC	[M]
		TRANSISTORS	
Q2000	B1GBCFLL0037	TRANSISTOR	[M]
Q2001	B1GBCFJJ0051	TRANSISTOR	[M]
Q2002	B1GBCFJJ0051	TRANSISTOR	[M]
Q2004	B1GBCFJN0033	TRANSISTOR	[M]
Q2026	B1GDCFGA0018	TRANSISTOR	[M]
Q2028	B1GBCFJN0033	TRANSISTOR	[M]
Q2029	B1GBCFJN0033	TRANSISTOR	[M]
Q2031	B1GBCFJJ0051	TRANSISTOR	[M]
Q2100	B1GFGCAA0001	TRANSISTOR	[M]
Q2102	B1GFGCAA0001	TRANSISTOR	[M]
Q2103	B1GDCFGA0018	TRANSISTOR	[M]
Q2104	B1GFGCAA0001	TRANSISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
Q2105	B1GDCFGA0018	TRANSISTOR	[M]
Q2106	B1GFGCAA0001	TRANSISTOR	[M]
Q2200	B1GFGCAA0001	TRANSISTOR	[M]
Q2201	B1GDCFGA0018	TRANSISTOR	[M]
Q2302	B1GFGCAA0001	TRANSISTOR	[M]
Q2305	B1GDCFGA0018	TRANSISTOR	[M]
Q2500	B1GDCFGA0018	TRANSISTOR	[M]
Q2600	B1GDCFGA0018	TRANSISTOR	[M]
Q2601	B1GFGCAA0001	TRANSISTOR	[M]
Q2602	B1GDCFJJ0047	TRANSISTOR	[M]
Q2603	B1GDCFGA0018	TRANSISTOR	[M]
Q2604	B1GFGCAA0001	TRANSISTOR	[M]
Q2605	B1GDCFGA0018	TRANSISTOR	[M]
Q2801	B1ADCF000001	TRANSISTOR	[M]
Q2803	B1BCCG000023	TRANSISTOR	[M]
Q2804	B1ABCE000016	TRANSISTOR	[M]
Q2805	B1ABCE000016	TRANSISTOR	[M]
Q2806	B1ACKD000005	TRANSISTOR	[M]
Q2807	B1BCCD000019	TRANSISTOR	[M]
Q2808	B1ADCF000001	TRANSISTOR	[M]
Q2809	B1ACKD000005	TRANSISTOR	[M]
Q2811	B1BCCG000023	TRANSISTOR	[M]
Q2812	B1ABCE000016	TRANSISTOR	[M]
Q2813	B1AAKD000014	TRANSISTOR	[M]
Q2814	2SD21370PA	TRANSISTOR	[M]
Q2818	B1GBCFJA0028	TRANSISTOR	[M]
Q6900	B1GBCFJN0033	TRANSISTOR	[M]
Q6901	B1GBCFJN0033	TRANSISTOR	[M]
Q6902	B1GBCFJN0033	TRANSISTOR	[M]
Q6903	B1GBCFJN0033	TRANSISTOR	[M]
Q6904	B1GBCFJN0033	TRANSISTOR	[M]
Q6909	B1GBCFJN0033	TRANSISTOR	[M]
Q8550	2SB1219AHL	TRANSISTOR	[M]
Q8551	2SD1819A0L	TRANSISTOR	[M]
Q8552	2SB09700RL	TRANSISTOR	[M]
Q8560	2SD1819A0L	TRANSISTOR	[M]
Q8561	2SD1819A0L	TRANSISTOR	[M]
Q8562	2SB09700RL	TRANSISTOR	[M]
Q8606	2SD1819A0L	TRANSISTOR	[M]
Q8607	2SD1819A0L	TRANSISTOR	[M]
Q9001	B3NAA0000068	CAM SENSOR	[M]
Q9101	B3NAA0000078	POSITION SENSOR	[M]
Q9102	B3NAA0000011	PHOTO INTERRUPTOR	[M]
Q9103	B3NAB0000027	PHOTO REFLECTOR	[M]
QR8111	UNR521400L	TRANSISTOR	[M]
QR8112	UNR521400L	TRANSISTOR	[M]
QR8420	UNR521100L	TRANSISTOR	[M]
QR8571	UNR511V00L	TRANSISTOR	[M]
		DIODES	
D2000	B0ACCE000003	DIODE	[M]
D2001	B0ACCE000003	DIODE	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
D2002	B0ACCE000003	DIODE	[M]
D2003	B0ACCK000005	DIODE	[M]
D2004	B0ECKM000016	DIODE	[M]
D2005	B0ECKM000016	DIODE	[M]
D2006	B0ECKM000016	DIODE	[M]
D2007	B0ECKM000016	DIODE	[M]
D2601	B0ACCK000005	DIODE	[M]
D2602	B0ACCK000005	DIODE	[M]
D2603	B0ACCK000005	DIODE	[M]
D2801	B0JCPD000025	DIODE	[M]
D2802	B0BC7R500001	DIODE	[M]
D2803	B0ACCK000005	DIODE	[M]
D2804	B0BC9R000008	DIODE	[M]
D2805	B0ECKM000016	DIODE	[M]
D2806	B0ECKM000016	DIODE	[M]
D2807	B0ACCK000005	DIODE	[M]
D2808	B0ACCK000005	DIODE	[M]
D2809	B0EAKM000117	DIODE	[M]
D2810	B0EAKM000117	DIODE	[M]
D2811	B0EAKM000117	DIODE	[M]
D2812	B0EAKM000117	DIODE	[M]
D2813	B0EAKM000117	DIODE	[M]
D2814	B0EAKM000117	DIODE	[M]
D2815	B0EAKM000117	DIODE	[M]
D2816	B0EAKM000117	DIODE	[M]
D2817	B0EAKM000117	DIODE	[M]
D2818	MAZ82200ML	DIODE	[M]
D2819	B0BC9R000008	DIODE	[M]
D2820	B0ACCK000005	DIODE	[M]
D2822	B0FBAM000010	DIODE	[M]
D2823	B0BC5R600003	DIODE	[M]
D2824	B0BC7R500001	DIODE	[M]
D2827	B0ECKM000016	DIODE	[M]
D2831	B0EAKM000117	DIODE	[M]
D2832	B0ACCK000005	DIODE	[M]
D2850	B0ADCJ000020	DIODE	[M]
D2851	B0ADCJ000020	DIODE	[M]
D2852	B0ACCK000005	DIODE	[M]
D6802	B0BC7R500001	DIODE	[M]
D6803	B3AEA0000058	DIODE	[M]
D6900	B3AAA0000583	DIODE	[M]
D6901	B3ABA0000397	DIODE	[M]
D6902	B3ABA0000397	DIODE	[M]
D6903	B3ABA0000397	DIODE	[M]
D6904	B3ABA0000397	DIODE	[M]
D6905	B3ABA0000397	DIODE	[M]
D6910	B0BC5R000009	DIODE	[M]
D6911	B0ACCK000005	DIODE	[M]
D6912	B3AAA0000583	DIODE	[M]
D8231	MA2J11100L	DIODE	[M]
D8550	MA2J11100L	DIODE	[M]
D8571	MA2J72800L	DIODE	[M]
		CHIP INDUCTORS	

Ref. No.	Part No.	Part Name & Description	Remarks
LB8001	J0JHC0000045	CHIP INDUCTOR	[M]
LB8002	J0JHC0000045	CHIP INDUCTOR	[M]
LB8301	J0JCC0000119	CHIP INDUCTOR	[M]
LB8302	J0JCC0000119	CHIP INDUCTOR	[M]
LB8303	J0JCC0000119	CHIP INDUCTOR	[M]
LB8304	J0JCC0000119	CHIP INDUCTOR	[M]
LB8305	J0JCC0000119	CHIP INDUCTOR	[M]
LB8401	ERJ2GEJ151X	CHIP RESISTOR	[M]
LB8421	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8422	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8423	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8424	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8425	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8426	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8427	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8428	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8429	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8430	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8491	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8502	J0JHC0000045	CHIP INDUCTOR	[M]
LB8503	ERJ2GE0R00X	CHIP RESISTOR	[M]
LB8504	J0JCC0000119	CHIP INDUCTOR	[M]
LB8505	J0JCC0000119	CHIP INDUCTOR	[M]
LB8507	J0JCC0000119	CHIP INDUCTOR	[M]
LB8511	ERJ3GEY0R00V	CHIP RESISTOR	[M]
LB8512	ERJ3GEY0R00V	CHIP RESISTOR	[M]
LB8513	ERJ3GEY0R00V	CHIP RESISTOR	[M]
LB8514	ERJ3GEY0R00V	CHIP RESISTOR	[M]
LB8690	J0JCC0000091	CHIP INDUCTOR	[M]
LB8691	ERJ2GEJ101X	CHIP RESISTOR	[M]
LB8692	ERJ2GEJ101X	CHIP RESISTOR	[M]
LB8693	ERJ2GEJ101X	CHIP RESISTOR	[M]
		VARIABLE RESISTORS	
VR6800	EVEKE2F3024M	VR VOLUME JOG	[M]
		SWITCHES	
S6801	EVQ21405R	SW PLAY	[M]
S6802	EVQ21405R	SW REV	[M]
S6803	EVQ21405R	SW FWD	[M]
S6804	EVQ21405R	SW PAUSE	[M]
S6805	EVQ21405R	SW OPEN/CLOSE	[M]
S6806	EVQ21405R	SW SKIP	[M]
S6807	EVQ21405R	SW DISC EX	[M]
S6808	EVQ21405R	SW STOP	[M]
S6900	EVQ21405R	SW POWER	[M]
S6901	EVQ21405R	SW SEELECTOR	[M]
S6902	EVQ21405R	SW DISC 1	[M]
S6903	EVQ21405R	SW DISC 2	[M]
S6904	EVQ21405R	SW DISC 3	[M]
S6905	EVQ21405R	SW DISC 4	[M]
S6906	EVQ21405R	SW DISC 5	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
S6907	EVQ21405R	SW HARMONIC BASS	[M]
S6909	EVQ21405R	SW PROGRESSIVE	[M]
S6910	EVQ21405R	SW CD	[M]
S9001	K0L1BA000086	SW LOADING	[M]
		CONNECTORS	
CN2002	K1KA10AA0031	10P CONNECTOR	[M]
CN2004	K1MN50A00008	50P CONNECTOR	[M]
CN2008	K1MN10A00052	10P CONNECTOR	[M]
CN2009	K1MN19A00036	19P CONNECTOR	[M]
CN2010	K1MN11A00030	11P CONNECTOR	[M]
CN2011	K1MN11A00030	11P CONNECTOR	[M]
CN6801	K1MN10B00088	10P CONNECTOR	[M]
CN6901	K1MN19B00026	19P CONNECTOR	[M]
CN9003	K1MN11B00065	11P CONNECTOR	[M]
CN9102	K1MN11B00065	11P CONNECTOR	[M]
FP8101	K1MN50B00031	50P CONNECTOR	[M]
FP8201	K1MN06B00080	6P CONNECTOR	[M]
FP8501	K1MN26B00094	26P CONNECTOR	[M]
		COILS	
L2000	G0C3R3JA0027	COIL	[M]
L2003	J0JBC0000015	CHIP INDUCTOR	[M]
L2004	J0JBC0000015	CHIP INDUCTOR	[M]
L2005	J0JBC0000015	CHIP INDUCTOR	[M]
L2006	J0JBC0000015	CHIP INDUCTOR	[M]
L2007	J0JBC0000015	CHIP INDUCTOR	[M]
L2008	J0JBC0000015	CHIP INDUCTOR	[M]
L2009	J0JBC0000015	CHIP INDUCTOR	[M]
L2010	ELESN220JA	COIL	[M]
L2022	J0JBC0000015	CHIP INDUCTOR	[M]
L2023	J0JBC0000015	CHIP INDUCTOR	[M]
L2024	J0JBC0000015	CHIP INDUCTOR	[M]
L2025	J0JBC0000015	CHIP INDUCTOR	[M]
L2026	J0JBC0000015	CHIP INDUCTOR	[M]
L2027	J0JBC0000015	CHIP INDUCTOR	[M]
L2801	G0ZZ00001930	COIL	[M]
L2802	J0JHC0000045	CHIP CAPACITOR	[M]
L2805	ERJ3GEY0R00V	CHIP RESISTOR	[M]
L6101	J0JBC0000019	CHIP INDUCTOR	[M]
L6201	J0JBC0000019	CHIP INDUCTOR	[M]
L6801	J0JBC0000019	CHIP INDUCTOR	[M]
L6903	J0JBC0000041	CHIP INDUCTOR	[M]
L8201	G1C100K00020	CHIP INDUCTOR	[M]
L8202	J0JCC0000079	CHIP INDUCTOR	[M]
L8301	G1C100KA0055	CHIP INDUCTOR	[M]
L8302	J0JCC0000079	CHIP INDUCTOR	[M]
L8550	G1C100KA0055	CHIP INDUCTOR	[M]
		COMPONENT COMBINATION	
Z6900	B3RAB0000025	REMOTE SENSOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
		OSCILLATORS	
X2000	H2D800400009	CRYSTAL OSCILLATOR	[M]
X8621	H0J270500085	CRYSTAL OSCILLATOR	[M]
		DISPLAY TUBE	
FL6901	A2BD00000108	FL DISPLAY	[M]
FL8101	F1H0J1050022	CHIP CAPACITOR	[M]
FL8102	F1H0J1050022	CHIP CAPACITOR	[M]
FL8103	F1H0J1050022	CHIP CAPACITOR	[M]
FL8104	F1J1E1040022	CHIP CAPACITOR	[M]
		FUSE HOLDERS	
FC9101	RWJ4906082SS	6P FLAT CABLE	[M]
		FUSE PROTECTOR	
FP2000	K5G202AA0002	FUSE PROTECTOR	[M] ⚠
		JACKS	
JK2000	K1FB125B0097	JK SYSTEM CONNECTOR	[M]
JK2001	K2HZ929B0001	JK COMBO	[M]
JK6801	K2HC103A0024	JK SMALL SIGN	[M]
		EART TERMINAL	
E2000	K4CZ01000027	TERMINALS	[M]
		CHIP RESISTORS	
W1208	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2000	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2000	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2001	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2001	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2002	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2002	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2003	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2003	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2004	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2004	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2005	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2006	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2007	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2008	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2008	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2009	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2010	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2010	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2011	ERJ3GEY0R00V	CHIP RESISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
W2011	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2012	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2013	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2014	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2014	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2015	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2015	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2016	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2016	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2017	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2017	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2018	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2018	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2019	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2019	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2020	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2021	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2022	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2023	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2024	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2024	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2025	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2025	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2026	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2027	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2028	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2029	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2029	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2030	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2031	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2032	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2034	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2035	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2036	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2038	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2039	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2040	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2045	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2051	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2052	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2053	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2055	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2056	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2057	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2058	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2059	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2060	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2061	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2062	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2064	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2065	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2066	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2067	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2068	ERJ6GEY0R00V	CHIP RESISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
W2069	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2070	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2071	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2076	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2081	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2082	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2083	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2084	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2085	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2086	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2088	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2092	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2094	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2095	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2100	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2101	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2119	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2121	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2128	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2171	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2200	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2205	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2206	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2207	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2209	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2210	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2262	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2330	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2331	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W2334	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W2620	ERJ6GEY0R00V	CHIP RESISTOR	[M]
W3000	ERJ3GEY0R00V	CHIP RESISTOR	[M]
W4000	ERJ3GEY0R00V	CHIP RESISTOR	[M]
		RESISTORS	
R2000	ERJ3GEYJ101V	100 1/16W	[M]
R2001	ERJ3GEYJ101V	100 1/16W	[M]
R2002	ERJ3GEYJ221V	220 1/16W	[M]
R2003	ERJ3GEYJ103V	10K 1/16W	[M]
R2004	ERJ3GEYJ103V	10K 1/16W	[M]
R2005	ERJ3GEYJ473V	47K 1/16W	[M]
R2006	ERJ3GEYJ104V	100K 1/16W	[M]
R2007	ERJ3GEYJ223V	22K 1/16W	[M]
R2008	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2009	ERJ3GEYJ221V	220 1/16W	[M]
R2010	ERJ3GEYJ221V	220 1/16W	[M]
R2011	ERJ3GEYJ101V	100 1/16W	[M]
R2012	ERJ3GEYJ101V	100 1/16W	[M]
R2013	ERJ3GEYJ101V	100 1/16W	[M]
R2014	ERJ3GEYJ101V	100 1/16W	[M]
R2015	ERJ3GEYJ221V	220 1/16W	[M]
R2016	ERJ3GEYJ221V	220 1/16W	[M]
R2017	ERJ3GEYJ221V	220 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2018	ERJ3GEYJ102V	1K 1/16W	[M]
R2019	ERJ3GEYJ221V	220 1/16W	[M]
R2020	ERJ3GEYJ221V	220 1/16W	[M]
R2021	ERJ3GEYJ221V	220 1/16W	[M]
R2022	ERJ3GEYJ221V	220 1/16W	[M]
R2023	ERJ3GEYJ223V	22K 1/16W	[M]
R2024	ERJ3GEYJ103V	10K 1/16W	[M]
R2025	ERJ3GEYJ221V	220 1/16W	[M]
R2026	ERJ3GEYJ221V	220 1/16W	[M]
R2031	ERJ3GEYJ221V	220 1/16W	[M]
R2032	ERJ3GEYJ221V	220 1/16W	[M]
R2035	ERJ3GEYJ221V	220 1/16W	[M]
R2037	ERJ3GEYJ221V	220 1/16W	[M]
R2038	ERJ3GEYJ221V	220 1/16W	[M]
R2040	ERJ3GEYJ221V	220 1/16W	[M]
R2041	ERJ3GEYJ221V	220 1/16W	[M]
R2042	ERJ3GEYJ103V	10K 1/16W	[M]
R2046	ERJ3GEYJ221V	220 1/16W	[M]
R2047	ERJ3GEYJ103V	10K 1/16W	[M]
R2048	ERJ3GEYJ221V	220 1/16W	[M]
R2049	ERJ3GEYJ473V	47K 1/16W	[M]
R2050	ERJ3GEYJ221V	220 1/16W	[M]
R2051	ERJ3GEYJ103V	10K 1/16W	[M]
R2052	ERJ3GEYJ563V	56K 1/16W	[M]
R2053	ERJ3GEYJ221V	220 1/16W	[M]
R2054	ERJ3GEYJ473V	47K 1/16W	[M]
R2055	ERJ3GEYJ221V	220 1/16W	[M]
R2056	ERJ3GEYJ221V	220 1/16W	[M]
R2057	ERJ3GEYJ221V	220 1/16W	[M]
R2058	ERJ3GEYJ221V	220 1/16W	[M]
R2060	ERJ3GEYJ221V	220 1/16W	[M]
R2061	ERJ3GEYJ221V	220 1/16W	[M]
R2062	ERJ3GEYJ221V	220 1/16W	[M]
R2064	ERJ3GEYJ221V	220 1/16W	[M]
R2065	ERJ3GEYJ221V	220 1/16W	[M]
R2067	ERJ3GEYJ473V	47K 1/16W	[M]
R2068	ERJ3GEYJ473V	47K 1/16W	[M]
R2069	ERJ3GEYJ563V	56K 1/16W	[M]
R2072	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2074	ERJ3GEYJ103V	10K 1/16W	[M]
R2075	ERJ3GEYJ103V	10K 1/16W	[M]
R2076	ERJ3GEYJ103V	10K 1/16W	[M]
R2077	ERJ3GEYJ103V	10K 1/16W	[M]
R2078	ERJ3GEYJ221V	220 1/16W	[M]
R2080	ERJ3GEYJ471V	470 1/16W	[M]
R2081	ERJ3GEYJ223V	22K 1/16W	[M]
R2082	ERJ3GEYJ473V	47K 1/16W	[M]
R2083	ERJ3GEYJ681V	680 1/16W	[M]
R2084	ERJ3GEYJ473V	47K 1/16W	[M]
R2085	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2086	ERJ3GEYJ221V	220 1/16W	[M]
R2088	ERJ3GEYJ221V	220 1/16W	[M]
R2092	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2093	ERJ3GEYJ223V	22K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2094	ERJ3GEYJ223V	22K 1/16W	[M]
R2095	ERJ3GEYJ121V	120 1/16W	[M]
R2096	ERJ3GEYJ151V	150 1/16W	[M]
R2097	ERJ3GEYJ331V	330 1/16W	[M]
R2098	ERJ3GEYJ331V	330 1/16W	[M]
R2099	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2100	ERJ3GEYJ102V	1K 1/16W	[M]
R2101	ERJ3GEYJ473V	47K 1/16W	[M]
R2106	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2107	ERJ3GEYJ104V	100K 1/16W	[M]
R2108	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2111	ERJ3GEYJ333V	33K 1/16W	[M]
R2112	ERJ3GEYJ103V	10K 1/16W	[M]
R2113	ERJ3GEYJ103V	10K 1/16W	[M]
R2114	ERJ3GEYJ103V	10K 1/16W	[M]
R2115	ERJ3GEYJ273V	27K 1/16W	[M]
R2116	ERJ3GEYJ104V	100K 1/16W	[M]
R2117	ERJ3GEYJ104V	100K 1/16W	[M]
R2127	ERJ3GEYJ104V	100K 1/16W	[M]
R2128	ERJ3GEYJ102V	1K 1/16W	[M]
R2129	ERJ3GEYJ123V	12K 1/16W	[M]
R2130	ERJ3GEYJ103V	10K 1/16W	[M]
R2131	ERJ3GEYJ103V	10K 1/16W	[M]
R2132	ERJ3GEYJ103V	10K 1/16W	[M]
R2133	ERJ3GEYJ103V	10K 1/16W	[M]
R2134	ERJ3GEYJ103V	10K 1/16W	[M]
R2135	ERJ3GEYJ103V	10K 1/16W	[M]
R2144	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2145	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2146	ERJ3GEYJ333V	33K 1/16W	[M]
R2147	ERJ3GEYJ220V	22 1/16W	[M]
R2148	ERJ3GEYJ220V	22 1/16W	[M]
R2149	ERJ3GEYJ220V	22 1/16W	[M]
R2150	ERJ3GEYJ220V	22 1/16W	[M]
R2151	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2152	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2153	ERJ3GEYJ100V	10 1/16W	[M]
R2154	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2155	ERJ3GEYJ104V	100K 1/16W	[M]
R2156	ERJ3GEYJ103V	10K 1/16W	[M]
R2157	ERJ3GEYJ123V	12K 1/16W	[M]
R2160	ERJ3GEYJ103V	10K 1/16W	[M]
R2161	ERJ3GEYJ223V	22K 1/16W	[M]
R2162	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2163	ERJ3GEYJ102V	1K 1/16W	[M]
R2164	ERJ3GEYJ183V	18K 1/16W	[M]
R2165	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2166	ERJ3GEYJ122V	1.2K 1/16W	[M]
R2167	ERJ3GEYJ123V	12K 1/16W	[M]
R2168	ERJ3GEYJ223V	22K 1/16W	[M]
R2169	ERJ3GEYJ562V	5.6K 1/16W	[M]
R2170	ERJ3GEYJ392V	3.9K 1/16W	[M]
R2172	ERJ3GEY0R00V	0 1/16W	[M]
R2178	ERJ3GEYJ183V	18K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2179	ERJ3GEYJ224V	220K 1/16W	[M]
R2181	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2183	ERJ3GEYJ184V	180K 1/16W	[M]
R2200	ERJ3GEYJ102V	1K 1/16W	[M]
R2201	ERJ3GEYJ473V	47K 1/16W	[M]
R2206	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2207	ERJ3GEYJ104V	100K 1/16W	[M]
R2208	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2211	ERJ3GEYJ333V	33K 1/16W	[M]
R2212	ERJ3GEYJ103V	10K 1/16W	[M]
R2213	ERJ3GEYJ103V	10K 1/16W	[M]
R2214	ERJ3GEYJ103V	10K 1/16W	[M]
R2215	ERJ3GEYJ273V	27K 1/16W	[M]
R2216	ERJ3GEYJ104V	100K 1/16W	[M]
R2217	ERJ3GEYJ104V	100K 1/16W	[M]
R2227	ERJ3GEYJ104V	100K 1/16W	[M]
R2228	ERJ3GEYJ102V	1K 1/16W	[M]
R2229	ERJ3GEYJ103V	10K 1/16W	[M]
R2230	ERJ3GEYJ103V	10K 1/16W	[M]
R2231	ERJ3GEYJ103V	10K 1/16W	[M]
R2232	ERJ3GEYJ103V	10K 1/16W	[M]
R2233	ERJ3GEYJ103V	10K 1/16W	[M]
R2234	ERJ3GEYJ103V	10K 1/16W	[M]
R2235	ERJ3GEYJ123V	12K 1/16W	[M]
R2244	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2245	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2246	ERJ3GEYJ333V	33K 1/16W	[M]
R2247	ERJ3GEYJ220V	22 1/16W	[M]
R2248	ERJ3GEYJ220V	22 1/16W	[M]
R2249	ERJ3GEYJ220V	22 1/16W	[M]
R2250	ERJ3GEYJ220V	22 1/16W	[M]
R2251	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2252	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2253	ERJ3GEYJ100V	10 1/16W	[M]
R2254	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2255	ERJ3GEYJ104V	100K 1/16W	[M]
R2256	ERJ3GEYJ103V	10K 1/16W	[M]
R2257	ERJ3GEYJ123V	12K 1/16W	[M]
R2260	ERJ3GEYJ103V	10K 1/16W	[M]
R2261	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2262	ERJ3GEYJ223V	22K 1/16W	[M]
R2263	ERJ3GEYJ102V	1K 1/16W	[M]
R2264	ERJ3GEYJ183V	18K 1/16W	[M]
R2265	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2266	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2267	ERJ3GEYJ563V	56K 1/16W	[M]
R2268	ERJ3GEYJ273V	27K 1/16W	[M]
R2269	ERJ3GEYJ562V	5.6K 1/16W	[M]
R2271	ERJ3GEY0R00V	0 1/16W	[M]
R2278	ERJ3GEYJ183V	18K 1/16W	[M]
R2279	ERJ3GEYJ224V	220K 1/16W	[M]
R2281	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2283	ERJ3GEYJ184V	180K 1/16W	[M]
R2300	ERJ3GEYJ103V	10K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2301	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2302	ERJ3GEYJ223V	22K 1/16W	[M]
R2303	ERJ3GEYJ303V	30K 1/16W	[M]
R2304	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2305	ERJ3GEYJ102V	1K 1/16W	[M]
R2306	ERJ3GEYJ104V	100K 1/16W	[M]
R2307	ERJ3GEYJ101V	100 1/16W	[M]
R2308	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2309	ERJ3GEYJ563V	56K 1/16W	[M]
R2310	ERJ3GEYJ273V	27K 1/16W	[M]
R2311	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2312	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2323	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2325	ERJ3GEYJ273V	27K 1/16W	[M]
R2328	ERJ3GEYJ102V	1K 1/16W	[M]
R2330	ERJ3GEYJ123V	12K 1/16W	[M]
R2333	ERJ3GEYJ563V	56K 1/16W	[M]
R2400	ERJ3GEYJ103V	10K 1/16W	[M]
R2401	ERJ3GEYJ682V	6.8K 1/16W	[M]
R2402	ERJ3GEYJ223V	22K 1/16W	[M]
R2403	ERJ3GEYJ303V	30K 1/16W	[M]
R2404	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2405	ERJ3GEYJ102V	1K 1/16W	[M]
R2406	ERJ3GEYJ104V	100K 1/16W	[M]
R2407	ERJ3GEYJ101V	100 1/16W	[M]
R2428	ERJ3GEYJ102V	1K 1/16W	[M]
R2430	ERJ3GEYJ123V	12K 1/16W	[M]
R2500	ERJ3GEYJ103V	10K 1/16W	[M]
R2501	ERJ3GEYJ333V	33K 1/16W	[M]
R2502	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2503	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2504	ERJ3GEYJ123V	12K 1/16W	[M]
R2505	ERJ3GEYJ102V	1K 1/16W	[M]
R2506	ERJ3GEYJ333V	33K 1/16W	[M]
R2507	ERJ3GEYJ103V	10K 1/16W	[M]
R2508	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2509	ERJ3GEYJ563V	56K 1/16W	[M]
R2510	ERJ3GEYJ273V	27K 1/16W	[M]
R2511	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2600	ERJ3GEYJ103V	10K 1/16W	[M]
R2603	ERJ3GEYJ123V	12K 1/16W	[M]
R2604	ERJ3GEYJ333V	33K 1/16W	[M]
R2605	ERJ3GEYJ122V	1.2K 1/16W	[M]
R2606	ERJ3GEYJ103V	10K 1/16W	[M]
R2607	ERJ3GEYJ273V	27K 1/16W	[M]
R2608	ERJ3GEYJ124V	120K 1/16W	[M]
R2609	ERJ3GEYJ563V	56K 1/16W	[M]
R2610	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2611	ERJ3GEYJ683V	68K 1/16W	[M]
R2612	ERJ3GEYJ103V	10K 1/16W	[M]
R2613	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2614	ERJ3GEYJ102V	1K 1/16W	[M]
R2615	ERJ3GEYJ104V	100K 1/16W	[M]
R2616	ERJ3GEYJ153V	15K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2617	ERJ3GEYJ333V	33K 1/16W	[M]
R2618	ERJ3GEYJ102V	1K 1/16W	[M]
R2619	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2620	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2621	ERJ3GEYJ563V	56K 1/16W	[M]
R2622	ERJ3GEYJ273V	27K 1/16W	[M]
R2623	ERJ3GEYJ104V	100K 1/16W	[M]
R2624	ERJ3GEYJ104V	100K 1/16W	[M]
R2625	ERJ3GEYJ562V	5.6K 1/16W	[M]
R2626	ERJ3GEYJ563V	56K 1/16W	[M]
R2627	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2628	ERJ3GEYJ273V	27K 1/16W	[M]
R2629	ERJ3GEYJ104V	100K 1/16W	[M]
R2630	ERJ3GEYJ822V	8.2K 1/16W	[M]
R2631	ERJ3GEYJ102V	1K 1/16W	[M]
R2632	ERJ3GEY0R00V	0 1/16W	[M]
R2633	ERJ3GEYJ104V	100K 1/16W	[M]
R2634	ERJ3GEYJ103V	10K 1/16W	[M]
R2635	ERJ3GEYJ103V	10K 1/16W	[M]
R2636	ERJ3GEYJ103V	10K 1/16W	[M]
R2637	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2638	ERJ3GEYJ332V	3.3K 1/16W	[M]
R2639	ERJ3GEYJ103V	10K 1/16W	[M]
R2640	ERJ3GEYJ563V	56K 1/16W	[M]
R2641	ERJ3GEYJ333V	33K 1/16W	[M]
R2642	ERJ3GEYJ393V	39K 1/16W	[M]
R2643	ERJ3GEYJ104V	100K 1/16W	[M]
R2644	ERJ3GEYJ273V	27K 1/16W	[M]
R2645	ERJ3GEYJ563V	56K 1/16W	[M]
R2646	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2647	ERJ3GEYJ104V	100K 1/16W	[M]
R2648	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2649	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2650	ERJ3GEYJ223V	22K 1/16W	[M]
R2651	ERJ3GEYJ123V	12K 1/16W	[M]
R2652	ERJ3GEYJ224V	220K 1/16W	[M]
R2653	ERJ3GEYJ102V	1K 1/16W	[M]
R2654	ERJ3GEYJ104V	100K 1/16W	[M]
R2655	ERJ3GEYJ104V	100K 1/16W	[M]
R2656	ERJ3GEYJ103V	10K 1/16W	[M]
R2657	ERJ3GEYJ152V	1.5K 1/16W	[M]
R2658	ERJ3GEYJ392V	3.9K 1/16W	[M]
R2659	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2660	ERJ3GEYJ152V	1.5K 1/16W	[M]
R2661	ERJ3GEYJ152V	1.5K 1/16W	[M]
R2700	ERJ3GEYJ103V	10K 1/16W	[M]
R2706	ERJ3GEYJ331V	330 1/16W	[M]
R2707	ERJ3GEYJ8R2V	8.2 1/16W	[M]
R2800	ERJ3GEYJ331V	330 1/16W	[M]
R2801	ERJ3GEYJ1R0V	1 1/16W	[M]
R2802	ERJ3GEYJ103V	10K 1/16W	[M]
R2805	ERJ3GEYJ1R0V	1 1/16W	[M]
R2806	ERJ3GEYJ1R0V	1 1/16W	[M]
R2808	ERJ3GEYJ1R0V	1 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2810	ERJ3GEYJ103V	10K 1/16W	[M]
R2811	ERJ3GEYJ103V	10K 1/16W	[M]
R2813	ERJ3GEYJ471V	470 1/16W	[M]
R2815	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2817	ERJ3GEYJ102V	1K 1/16W	[M]
R2819	ERJ3GEYJ471V	470 1/16W	[M]
R2820	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2821	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2822	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2823	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2824	ERJ3GEYJ821V	820 1/16W	[M]
R2825	ERD2FCVJ4R7T	4.7 1/4W	[M]
R2826	ERJ3GEYJ681V	680 1/16W	[M]
R2827	ERJ3GEYJ471V	470 1/16W	[M]
R2828	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2829	ERJ3GEYJ102V	1K 1/16W	[M]
R2830	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2831	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2832	ERJ3GEYJ151V	150 1/16W	[M]
R2833	ERJ3GEYJ102V	1K 1/16W	[M]
R2834	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2835	ERJ3GEYJ222V	2.2K 1/16W	[M]
R2836	ERJ3GEYJ821V	820 1/16W	[M]
R2837	ERJ3GEYJ561V	560 1/16W	[M]
R2838	ERJ3GEYJ272V	2.7K 1/16W	[M]
R2839	ERJ3GEYJ821V	820 1/16W	[M]
R2840	ERJ3GEYJ151V	150 1/16W	[M]
R2841	ERD2FCVJ4R7T	4.7 1/4W	[M]
R2842	ERJ3GEYJ182V	1.8K 1/16W	[M]
R2843	ERJ3GEYJ471V	470 1/16W	[M]
R2849	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2850	ERJ3GEYJ393V	39K 1/16W	[M]
R2851	ERJ3GEYJ153V	15K 1/16W	[M]
R2855	ERJ3GEYJ102V	1K 1/16W	[M]
R2856	ERJ3GEYJ823V	82K 1/16W	[M]
R2858	ERJ3GEYJ102V	1K 1/16W	[M]
R2864	ERJ3GEYJ681V	680 1/16W	[M]
R2872	ERJ3GEYJ102V	1K 1/16W	[M]
R2873	ERJ3GEYJ273V	27K 1/16W	[M]
R2874	ERJ3GEYJ563V	56K 1/16W	[M]
R2878	ERJ3GEYJ1R0V	1 1/16W	[M]
R2879	ERJ3GEYJ1R0V	1 1/16W	[M]
R2880	ERJ3GEYJ1R0V	1 1/16W	[M]
R2881	ERJ3GEYJ1R0V	1 1/16W	[M]
R2882	ERJ3GEYJ1R0V	1 1/16W	[M]
R2883	ERJ3GEYJ1R0V	1 1/16W	[M]
R2884	ERJ3GEYJ1R0V	1 1/16W	[M]
R2885	ERJ3GEYJ1R0V	1 1/16W	[M]
R2886	D0HB750ZA003	75 3W	[M]
R2887	D0HB750ZA003	75 3W	[M]
R2888	D0HB750ZA003	75 3W	[M]
R2889	D0HB750ZA003	75 3W	[M]
R2890	D0HB750ZA003	75 3W	[M]
R2891	D0HB750ZA003	75 3W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R2892	ERJ3GEYJ102V	1K 1/16W	[M]
R2893	ERJ3GEYJ223V	22K 1/16W	[M]
R2894	ERJ3GEYJ224V	220K 1/16W	[M]
R2895	ERJ3GEYJ103V	10K 1/16W	[M]
R2897	ERJ3GEYJ102V	1K 1/16W	[M]
R2898	ERJ3GEYJ331V	330 1/16W	[M]
R2899	ERJ3GEYJ472V	4.7K 1/16W	[M]
R2901	ERJ3GEYJ224V	220K 1/16W	[M]
R2902	ERJ3GEY0R00V	0 1/16W	[M]
R2905	ERJ3GEYJ1R0V	1 1/16W	[M]
R2971	ERJ3GEY0R00V	0 1/16W	[M]
R2972	ERJ3GEY0R00V	0 1/16W	[M]
R2973	ERJ3GEY0R00V	0 1/16W	[M]
R2978	ERJ3GEYJ123V	12K 1/16W	[M]
R2979	ERJ3GEY0R00V	0 1/16W	[M]
R2982	ERJ3GEYJ103V	10K 1/16W	[M]
R2987	ERJ3GEY0R00V	0 1/16W	[M]
R2990	ERJ3GEYJ473V	47K 1/16W	[M]
R2991	ERJ3GEY0R00V	0 1/16W	[M]
R6801	ERJ3GEYJ272V	2.7K 1/16W	[M]
R6802	ERJ3GEYJ222V	2.2K 1/16W	[M]
R6803	ERJ3GEYJ122V	1.2K 1/16W	[M]
R6804	ERJ3GEYJ102V	1K 1/16W	[M]
R6805	ERJ3GEYJ102V	1K 1/16W	[M]
R6806	ERJ3GEYJ470V	47 1/16W	[M]
R6807	ERJ3GEYJ223V	22K 1/16W	[M]
R6808	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6809	ERJ3GEYJ223V	22K 1/16W	[M]
R6810	ERJ3GEYJ682V	6.8K 1/16W	[M]
R6811	ERJ3GEYJ470V	47 1/16W	[M]
R6812	ERJ3GEYJ182V	1.8K 1/16W	[M]
R6813	ERJ3GEYJ151V	150 1/16W	[M]
R6814	ERJ3GEYJ103V	10K 1/16W	[M]
R6903	ERJ3GEYJ221V	220 1/16W	[M]
R6904	ERJ3GEYJ221V	220 1/16W	[M]
R6905	ERJ3GEY0R00V	0 1/16W	[M]
R6906	ERJ3GEYJ221V	220 1/16W	[M]
R6907	ERJ3GEYJ221V	220 1/16W	[M]
R6908	ERJ3GEYJ221V	220 1/16W	[M]
R6909	ERJ3GEYJ221V	220 1/16W	[M]
R6910	ERJ3GEYJ221V	220 1/16W	[M]
R6914	ERJ3GEYJ183V	18K 1/16W	[M]
R6915	ERJ3GEYJ102V	1K 1/16W	[M]
R6916	ERJ3GEYJ680V	68 1/16W	[M]
R6917	ERJ3GEYJ102V	1K 1/16W	[M]
R6918	ERJ3GEYJ223V	22K 1/16W	[M]
R6922	ERJ3GEYJ102V	1K 1/16W	[M]
R6923	ERJ3GEYJ102V	1K 1/16W	[M]
R6924	ERJ3GEYJ122V	1.2K 1/16W	[M]
R6925	ERJ3GEYJ182V	1.8K 1/16W	[M]
R6926	ERJ3GEYJ222V	2.2K 1/16W	[M]
R6927	ERJ3GEYJ332V	3.3K 1/16W	[M]
R6928	ERJ3GEYJ472V	4.7K 1/16W	[M]
R6929	ERJ3GEYJ682V	6.8K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R6930	ERJ3GEYJ103V	10K 1/16W	[M]
R6931	ERJ3GEYJ223V	22K 1/16W	[M]
R6934	ERJ3GEYJ470V	47 1/16W	[M]
R6935	ERJ3GEYJ151V	150 1/16W	[M]
R6936	ERJ3GEYJ151V	150 1/16W	[M]
R6938	ERJ3GEYJ272V	2.7K 1/16W	[M]
R6939	ERJ3GEY0R00V	0 1/16W	[M]
R6940	ERJ3GEY0R00V	0 1/16W	[M]
R6941	ERJ3GEYJ221V	220 1/16W	[M]
R6942	ERJ3GEYJ221V	220 1/16W	[M]
R6943	ERJ3GEYJ221V	220 1/16W	[M]
R6944	ERJ3GEYJ221V	220 1/16W	[M]
R6945	ERJ3GEYJ221V	220 1/16W	[M]
R8011	ERJ2GEJ220X	22 2W	[M]
R8021	ERJ2GEJ103X	10K 2W	[M]
R8022	ERJ2GEJ103X	10K 2W	[M]
R8023	ERJ2GEJ473X	47K 2W	[M]
R8041	ERJ2GEJ330X	33 2W	[M]
R8111	ERJ2GEJ223X	22K 2W	[M]
R8112	ERJ2GEJ223X	22K 2W	[M]
R8201	ERJ2GEJ222X	2.2K 2W	[M]
R8231	ERJ2GEJ103X	10K 2W	[M]
R8233	ERJ2GEJ153X	15K 2W	[M]
R8235	ERJ2GEJ822X	8.2K 2W	[M]
R8236	ERJ2GEJ822X	8.2K 2W	[M]
R8241	ERJ2GEJ223X	22K 2W	[M]
R8242	ERJ2GEJ752X	7.5K 2W	[M]
R8243	ERJ2GEJ103X	10K 2W	[M]
R8251	ERJ6GEYJ6R8V	6.8 1/10W	[M]
R8261	ERJ2GEJ823X	82K 2W	[M]
R8262	ERJ2GEJ472X	4.7K 2W	[M]
R8263	ERJ2GEJ823X	82K 2W	[M]
R8264	ERJ2GEJ472X	4.7K 2W	[M]
R8265	ERJ2GE0R00X	0 2W	[M]
R8311	ERJ2RHD242X	2.4K 2W	[M]
R8312	ERJ2RHD102X	1K 2W	[M]
R8313	ERJ2RHD243X	24K 2W	[M]
R8314	ERJ2GE0R00X	0 2W	[M]
R8315	ERJ2GEJ6R8X	6.8 2W	[M]
R8321	ERJ3RBD161V	160 3W	[M]
R8322	ERJ2RKD100X	10 2W	[M]
R8325	ERJ3RBD161V	160 3W	[M]
R8326	ERJ2GEJ100X	10 2W	[M]
R8331	ERJ3RBD161V	160 3W	[M]
R8332	ERJ2RKD100X	10 2W	[M]
R8335	ERJ3RED820V	82 3W	[M]
R8341	ERJ3RED820V	82 3W	[M]
R8401	ERJ2GEJ473X	47K 2W	[M]
R8402	ERJ2GEJ101X	100 2W	[M]
R8404	ERJ2GEJ101X	100 2W	[M]
R8407	ERJ2GEJ101X	100 2W	[M]
R8420	ERJ2GEJ222X	2.2K 2W	[M]
R8421	ERJ2GE0R00X	0 2W	[M]
R8501	ERJ2GE0R00X	0 2W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R8505	ERJ2GEJ222X	2.2K 2W	[M]
R8506	ERJ2GEJ152X	1.5K 2W	[M]
R8550	ERJ2GEJ752X	7.5K 2W	[M]
R8551	ERJ2GE0R00X	0 2W	[M]
R8552	ERJ2GEJ102X	1K 2W	[M]
R8553	ERJ2GEJ102X	1K 2W	[M]
R8554	ERJ2GEJ680X	68 2W	[M]
R8555	ERJ2GEJ2R2X	2.2 2W	[M]
R8556	ERJ3GEYJ560V	56 1/16W	[M]
R8557	ERJ3GEYJ510V	51 1/16W	[M]
R8558	ERJ2GEJ473X	47K 2W	[M]
R8559	ERJ2GEJ153X	15K 2W	[M]
R8560	ERJ2GEJ102X	1K 2W	[M]
R8561	ERJ2GE0R00X	0 2W	[M]
R8562	ERJ2GEJ102X	1K 2W	[M]
R8563	ERJ2GEJ102X	1K 2W	[M]
R8564	ERJ2GEJ220X	22 2W	[M]
R8565	ERJ2GEJ2R2X	2.2 2W	[M]
R8566	ERJ3GEYJ560V	56 1/16W	[M]
R8567	ERJ3GEYJ510V	51 1/16W	[M]
R8568	ERJ2GEJ473X	47K 2W	[M]
R8569	ERJ2GEJ123X	12K 2W	[M]
R8570	ERJ2GEJ104X	100K 2W	[M]
R8601	ERJ2GEJ102X	1K 2W	[M]
R8606	ERJ2GEJ104X	100K 2W	[M]
R8607	ERJ2GEJ103X	10K 2W	[M]
R8611	ERJ2GEJ101X	100 2W	[M]
R8621	ERJ2GEJ105X	1M 2W	[M]
R8622	ERJ2RHD102X	1K 2W	[M]
K8001	ERJ2GE0R00X	CHIP JUMPER	[M]
K8006	ERJ2GE0R00X	CHIP JUMPER	[M]
K8031	ERJ2GE0R00X	CHIP JUMPER	[M]
K8106	ERJ3GEY0R00V	CHIP JUMPER	[M]
K8421	ERJ3GEY0R00V	CHIP JUMPER	[M]
RX8011	D1H88204A024	CHIP RESISTOR	[M]
RX8012	D1H88204A024	CHIP RESISTOR	[M]
RX8013	D1H88204A024	CHIP RESISTOR	[M]
RX8014	D1H88204A024	CHIP RESISTOR	[M]
RX8015	D1H422020001	CHIP RESISTOR	[M]
RX8016	D1H88204A024	CHIP RESISTOR	[M]
RX8017	D1H88204A024	CHIP RESISTOR	[M]
RX8018	D1H88204A024	CHIP RESISTOR	[M]
RX8021	D1H410320002	CHIP RESISTOR	[M]
RX8031	D1H447220001	CHIP RESISTOR	[M]
RX8032	D1H447220001	CHIP RESISTOR	[M]
RX8401	D1H410120001	CHIP RESISTOR	[M]
RX8402	D1H410120001	CHIP RESISTOR	[M]
RX8501	D1H456020001	CHIP RESISTOR	[M]
RX8502	D1H85604A024	CHIP RESISTOR	[M]
RX8503	D1H456020001	CHIP RESISTOR	[M]
RX8504	D1H456020001	CHIP RESISTOR	[M]
RX8611	D1H447220001	CHIP RESISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
		CAPACITORS	
C2003	ECEA1AKA220B	22 10V	[M]
C2004	ECJ1VB1E103K	0.01 25V	[M]
C2005	ECA1AM102B	1000 10V	[M]
C2006	ECEA1HKA2R2B	2.2 50V	[M]
C2007	ECJ1VB1C104K	0.1 16V	[M]
C2008	ECJ1VB1C104K	0.1 16V	[M]
C2009	ECEA0JKA101B	100 6.3V	[M]
C2019	ECJ1VB1H331K	330P 50V	[M]
C2020	ECJ1VB1H331K	330P 50V	[M]
C2021	ECJ1VB1H331K	330P 50V	[M]
C2022	ECJ1VB1H223K	0.022 50V	[M]
C2023	ECJ1VB1C104K	0.1 16V	[M]
C2024	ECEA1CKA470B	47 16V	[M]
C2028	ECJ1VB1A105K	1 10V	[M]
C2029	ECJ1VB1A105K	1 10V	[M]
C2032	ECJ1VB1C104K	0.1 16V	[M]
C2033	ECJ1VB1H103K	0.01 50V	[M]
C2034	ECJ1VB1C104K	0.1 16V	[M]
C2035	ECJ1VB1H103K	0.01 50V	[M]
C2036	ECEA1HKA220I	22 50V	[M]
C2037	ECJ1VB1H103K	0.01 50V	[M]
C2038	ECEA1AKA221I	220 10V	[M]
C2039	ECJ1VB1H103K	0.01 50V	[M]
C2040	ECA0JM102B	1000 6.3V	[M]
C2042	ECA0JM102B	1000 6.3V	[M]
C2044	ECA0JM102B	1000 6.3V	[M]
C2046	ECA0JM331I	330 6.3V	[M]
C2047	ECA0JM331I	330 6.3V	[M]
C2049	ECJ1VC1H101K	100P 50V	[M]
C2050	ECJ1VC1H101K	100P 50V	[M]
C2051	ECJ1VC1H101K	100P 50V	[M]
C2052	ECJ1VC1H101K	100P 50V	[M]
C2053	ECJ1VB1E103K	0.01 25V	[M]
C2090	ECJ1VB1E103K	0.01 25V	[M]
C2099	ECEA1HKN4R7B	4.7 50V	[M]
C2100	ECJ1VB1C393K	0.039 16V	[M]
C2101	ECJ1VB1H332K	3300P 50V	[M]
C2106	ECEA1HKA4R7I	4.7 50V	[M]
C2107	ECEA1HKA3R3I	3.3 50V	[M]
C2120	ECJ1VB1A105K	1 10V	[M]
C2121	ECJ1VC1H151K	150P 50V	[M]
C2122	ECJ1VB1H391K	390P 50V	[M]
C2123	ECEA1HKA100I	10 50V	[M]
C2124	ECJ1VC1H101K	100P 50V	[M]
C2125	ECJ1VC1H330J	33P 50V	[M]
C2126	ECJ1VB1E103K	0.01 25V	[M]
C2127	ECEA1HKA4R7I	4.7 50V	[M]
C2128	ECJ1VB1A225K	2.2 10V	[M]
C2130	ECJ1VB1A154K	0.15 10V	[M]
C2131	ECJ1VB1H332K	3300P 50V	[M]
C2136	ECJ1VB1H221K	220P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2137	ECJ1VB1H104K	0.1 50V	[M]
C2138	ECJ1VC1H221J	220P 50V	[M]
C2139	ECJ1VC1H101K	100P 50V	[M]
C2140	ECJ1VB1H681K	680P 50V	[M]
C2141	ECJ1VC1H101K	100P 50V	[M]
C2149	ECJ1VB1A105K	1 10V	[M]
C2150	ECEA1HKA010I	1 50V	[M]
C2151	ECJ1VC1H101K	100P 50V	[M]
C2152	ECJ1VC1H470J	47P 50V	[M]
C2153	ECA1CM101B	100 16V	[M]
C2154	ECJ1VB1E103K	0.01 25V	[M]
C2155	ECJ1VB1H102K	1000P 50V	[M]
C2156	ECJ1VB1A105K	1 10V	[M]
C2157	ECEA1HKA100B	10 50V	[M]
C2160	ECJ1VB1H471K	470P 50V	[M]
C2161	ECJ1VB1C104K	0.1 16V	[M]
C2162	ECJ1VB1A154K	0.15 10V	[M]
C2163	ECEA1HKA3R3B	3.3 50V	[M]
C2164	ECJ1VB1H272K	2700P 50V	[M]
C2165	ECJ1VB1A124K	0.12 10V	[M]
C2166	ECJ1VB1A124K	0.12 10V	[M]
C2167	ECEA1HKA4R7I	4.7 50V	[M]
C2168	ECEA1HKA3R3I	3.3 50V	[M]
C2169	ECJ1VB1H471K	470P 50V	[M]
C2170	ECEA1HKA4R7I	4.7 50V	[M]
C2175	ECJ1VB1A124K	0.12 10V	[M]
C2176	ECJ1VB1H471K	470P 50V	[M]
C2177	ECJ1VB1H471K	470P 50V	[M]
C2178	ECJ1VB1H331K	330P 50V	[M]
C2179	EEUFM1A681B	680P 10V	[M]
C2200	ECJ1VB1C393K	0.039 16V	[M]
C2201	ECJ1VB1H332K	3300P 50V	[M]
C2206	ECEA1HKA4R7I	4.7 50V	[M]
C2207	ECEA1HKA3R3I	3.3 50V	[M]
C2210	ECJ1VB1H223K	0.022 50V	[M]
C2211	ECJ1VB1C823K	0.082 16V	[M]
C2218	ECJ1VB1A105K	1 10V	[M]
C2219	ECJ1VB1A124K	0.12 10V	[M]
C2220	ECJ1VB1A124K	0.12 10V	[M]
C2221	ECJ1VC1H151K	150P 50V	[M]
C2222	ECJ1VB1H391K	390P 50V	[M]
C2223	ECEA1HKA100I	10 50V	[M]
C2224	ECJ1VC1H101K	100P 50V	[M]
C2225	ECJ1VC1H330J	33P 50V	[M]
C2226	ECJ1VB1E103K	0.01 25V	[M]
C2227	ECEA1HKA4R7I	4.7 50V	[M]
C2228	ECJ1VB1A154K	0.15 10V	[M]
C2229	ECJ1VB1A225K	2.2 10V	[M]
C2232	ECJ1VB1H332K	3300P 50V	[M]
C2236	ECJ1VC1H221J	220P 50V	[M]
C2237	ECJ1VB1H104K	0.1 50V	[M]
C2238	ECJ1VC1H221J	220P 50V	[M]
C2239	ECJ1VC1H101K	100P 50V	[M]
C2240	ECJ1VB1H681K	680P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2241	ECJ1VC1H101K	100P 50V	[M]
C2249	ECJ1VB1A105K	1 10V	[M]
C2250	ECEA1HKA010I	1 50V	[M]
C2251	ECJ1VC1H101K	100P 50V	[M]
C2252	ECJ1VC1H470J	47P 50V	[M]
C2253	ECA1CM101B	100 16V	[M]
C2254	ECJ1VB1E103K	0.01 25V	[M]
C2255	ECJ1VB1H102K	1000P 50V	[M]
C2256	ECJ1VB1A105K	1 10V	[M]
C2257	ECEA1HKA100B	10 50V	[M]
C2260	ECJ1VB1H471K	470P 50V	[M]
C2261	ECJ1VB1C104K	0.1 16V	[M]
C2262	ECJ1VB1A154K	0.15 10V	[M]
C2263	ECEA1HKA3R3I	3.3 50V	[M]
C2264	ECEA1HKA100I	10 50V	[M]
C2265	ECJ1VB1H272K	2700P 50V	[M]
C2266	ECEA1HKA4R7I	4.7 50V	[M]
C2267	ECEA1HKA4R7I	4.7 50V	[M]
C2270	ECJ1VB1A124K	0.12 10V	[M]
C2278	ECJ1VB1H331K	330P 50V	[M]
C2300	ECEA1CKA100B	10 16V	[M]
C2301	ECJ1VB1H471K	470P 50V	[M]
C2302	ECJ1VB1A105K	1 10V	[M]
C2303	ECEA1HKA3R3B	3.3 50V	[M]
C2310	ECJ1VB1H223K	0.022 50V	[M]
C2312	ECEA1HKA4R7I	4.7 50V	[M]
C2320	ECJ1VB1A124K	0.12 10V	[M]
C2400	ECEA1HKA100B	10 50V	[M]
C2401	F1K1A4750013	4.7 10V	[M]
C2402	ECJ1VB1H471K	470P 50V	[M]
C2403	ECJ1VB1A105K	1 10V	[M]
C2404	ECEA1HKA3R3B	3.3 50V	[M]
C2405	F1K1A4750013	4.7 10V	[M]
C2500	ECEA1CKA100B	10 16V	[M]
C2501	F1K1A4750013	4.7 10V	[M]
C2502	ECEA1HKA010I	1 50V	[M]
C2503	ECJ1VB1C333K	0.033 16V	[M]
C2504	ECJ1VB1C683K	0.068 16V	[M]
C2505	ECEA1HKA010I	1 50V	[M]
C2506	ECJ1VB1E103K	0.01 25V	[M]
C2507	ECJ1VC1H101K	100P 50V	[M]
C2508	ECEA1HKA4R7I	4.7 50V	[M]
C2511	ECJ1VB1A105K	1 10V	[M]
C2521	ECJ1VB1A105K	1 10V	[M]
C2522	ECJ1VB1A105K	1 10V	[M]
C2600	ECJ1VB1A105K	1 10V	[M]
C2602	ECEA1HKA100I	10 50V	[M]
C2603	ECEA1HKA100I	10 50V	[M]
C2604	ECJ1VB1H222K	2200P 50V	[M]
C2605	F1H1A334A025	0.33 10V	[M]
C2606	ECUV1C224KBV	0.22 16V	[M]
C2607	ECUV1C224KBV	0.22 16V	[M]
C2608	ECJ1VB1H104K	0.1 50V	[M]
C2609	ECJ1VB1H562K	5600P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2610	ECEA1HKA100B	10 50V	[M]
C2611	ECEA1HKA4R7I	4.7 50V	[M]
C2612	ECEA1HKA4R7I	4.7 50V	[M]
C2613	ECJ1VB1E103K	0.01 25V	[M]
C2615	ECJ1VB1H562K	5600P 50V	[M]
C2616	ECEA1CKA100I	10 16V	[M]
C2617	ECEA1HKA4R7I	4.7 50V	[M]
C2618	ECJ1VB1A124K	0.12 10V	[M]
C2619	ECJ1VB0J474K	0.47 6.3V	[M]
C2620	ECJ1VB1C683K	0.068 16V	[M]
C2621	ECJ1VC1H221J	220P 50V	[M]
C2623	ECJ1VB1C563K	0.056 16V	[M]
C2627	ECEA1HKA100I	10 50V	[M]
C2628	ECEA1HKA100I	10 50V	[M]
C2629	ECEA1HKA4R7I	4.7 50V	[M]
C2631	ECEA1HKA4R7I	4.7 50V	[M]
C2632	ECJ1VC1H101K	100P 50V	[M]
C2633	ECJ1VB1H223K	0.022 50V	[M]
C2634	ECEA1HKA4R7I	4.7 50V	[M]
C2635	ECJ1VC1H221J	220P 50V	[M]
C2636	ECEA1HKAR47B	0.47 50V	[M]
C2801	ECJ1VC1H101K	100P 50V	[M]
C2802	ECA1EM221B	220 25V	[M]
C2803	ECJ1VC1H101K	100P 50V	[M]
C2804	ECJ1VC1H101K	100P 50V	[M]
C2805	ECJ1VC1H101K	100P 50V	[M]
C2806	EEUFC0J821B	820P 6.3V	[M]
C2807	ECJ1VC1H101K	100P 50V	[M]
C2808	ECJ1VC1H101K	100P 50V	[M]
C2809	ECEA1EKA330B	33 25V	[M]
C2810	ECJ1VC1H101K	100P 50V	[M]
C2811	ECJ1VB1H103K	0.01 50V	[M]
C2812	ECJ1VC1H101K	100P 50V	[M]
C2814	ECJ1VC1H101K	100P 50V	[M]
C2815	ECJ1VB1H103K	0.01 50V	[M]
C2816	ECJ1VB1H221K	220P 50V	[M]
C2817	ECEA0JKA221B	220 6.3V	[M]
C2818	ECJ1VB1H221K	220P 50V	[M]
C2819	ECJ1VB1A105K	1 10V	[M]
C2820	ECJ1VB1E103K	0.01 25V	[M]
C2821	ECEA0JKA470B	47 6.3V	[M]
C2822	ECJ1VB1E103K	0.01 25V	[M]
C2823	ECJ1VB1A105K	1 10V	[M]
C2824	ECJ1VB1A105K	1 10V	[M]
C2825	ECEA0JKA331B	330 6.3V	[M]
C2826	ECQB1H104JF4	0.1 50V	[M]
C2827	ECEA1HKA100I	10 50V	[M]
C2828	ECA1JM101B	100 63V	[M]
C2829	ECA1HM101B	100 50V	[M]
C2830	F2A1E1020065	1000P 25V	[M]
C2831	ECEA1CKA470B	47 16V	[M]
C2832	F2A1E1020065	1000P 25V	[M]
C2833	ECEA1CKA470B	47 16V	[M]
C2834	ECA1HM101B	100 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C2835	ECA1JM101B	100 63V	[M]
C2836	ECA1CM101B	100 16V	[M]
C2837	ECJ1VB1H103K	0.01 50V	[M]
C2838	ECJ1VB1H103K	0.01 50V	[M]
C2839	ECEA1AKA330B	33 10V	[M]
C2840	ECJ1VB1C104K	0.1 16V	[M]
C2841	ECA1EM472B	4700 25V	[M]
C2842	ECJ1VB1H103K	0.01 50V	[M]
C2843	ECEA1EKA330B	33 25V	[M]
C2844	ECJ1VB1H103K	0.01 50V	[M]
C2845	ECJ1VB1C104K	0.1 16V	[M]
C2846	ECA1EM101B	100 25V	[M]
C2847	ECJ1VB1H103K	0.01 50V	[M]
C2848	ECA1EM101B	100 25V	[M]
C2853	ECEA1HKN4R7B	4.7 50V	[M]
C2856	ECA1HM101B	100 50V	[M]
C2857	ECJ1VB1A225K	2.2 10V	[M]
C2858	ECJ1VB1A225K	2.2 10V	[M]
C2859	ECJ1VB1E103K	0.01 25V	[M]
C2862	ECJ1VB1C104K	0.1 16V	[M]
C2863	ECEA1CKA221B	220 16V	[M]
C2866	ECJ1VB1A105K	1 10V	[M]
C6101	ECJ1VB1H473K	0.047 50V	[M]
C6201	ECJ1VB1H473K	0.047 50V	[M]
C6801	ECJ1VB1H102K	1000P 50V	[M]
C6805	ECJ1VC1H101K	100P 50V	[M]
C6806	ECJ1VC1H101K	100P 50V	[M]
C6903	ECEA1HKA220B	22 50V	[M]
C6904	ECJ1VB1H102K	1000P 50V	[M]
C6905	ECEA1HKA220B	22 50V	[M]
C6906	ECJ1VC1H390K	39P 50V	[M]
C6909	ECJ1VB1H103K	0.01 50V	[M]
C6910	ECEA0JKS101B	100 6.3V	[M]
C6911	ECJ1VB1H103K	0.01 50V	[M]
C6912	ECJ1VB1C104K	0.1 16V	[M]
C6913	ECEA1HKS3R3B	3.3 50V	[M]
C6914	ECUV1C224KBV	0.22 16V	[M]
C6915	ECJ1VC1H101K	100P 50V	[M]
C6916	ECJ1VC1H101K	100P 50V	[M]
C6917	ECJ1VC1H101K	100P 50V	[M]
C6918	ECEA1AKA470B	47 10V	[M]
C6919	ECJ1VB1H103K	0.01 50V	[M]
C8001	F2G0J101A066	100P 6.3V	[M]
C8002	F2G0G331A012	330P 4V	[M]
C8003	ECJ0EB1E222K	2200P 25V	[M]
C8004	ECJ0EF1C104Z	0.1 16V	[M]
C8005	ECJ0EF1C104Z	0.1 16V	[M]
C8006	ECJ0EF1C104Z	0.1 16V	[M]
C8007	ECJ0EF1C104Z	0.1 16V	[M]
C8008	ECJ0EF1C104Z	0.1 16V	[M]
C8009	ECJ0EF1C104Z	0.1 16V	[M]
C8010	ECJ0EF1C104Z	0.1 16V	[M]
C8011	ECJ1VB0J105K	1 6.3V	[M]
C8012	ECJ0EF1C104Z	0.1 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C8013	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8014	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8015	**ECJ1VB0J105K**	**1 6.3V**	**[M]**
C8016	**ECJ1VB0J105K**	**1 6.3V**	**[M]**
C8017	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8018	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8019	**ECJ1VB0J105K**	**1 6.3V**	**[M]**
C8020	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8021	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8022	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8023	**ECJ1VB0J105K**	**1 6.3V**	**[M]**
C8024	**ECJ1VB0J105K**	**1 6.3V**	**[M]**
C8025	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8026	**ECJ0EB1E222K**	**2200P 25V**	**[M]**
C8027	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8028	**ECJ1VB0J105K**	**0 6.3V**	**[M]**
C8031	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8051	**ECJ1VB0J105K**	**1 6.3V**	**[M]**
C8052	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8053	**ECJ0EC1H221J**	**220P 50V**	**[M]**
C8054	**ECJ1VB0J105K**	**1 6.3V**	**[M]**
C8055	**ECJ1VB0J105K**	**1 6.3V**	**[M]**
C8056	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8057	**ECJ0EB1E222K**	**2200P 25V**	**[M]**
C8111	**ECJ0EB1A104K**	**0.1 10V**	**[M]**
C8112	**ECJ1VB0J105K**	**1 6.3V**	**[M]**
C8113	**ECJ0EB1E471K**	**470P 25V**	**[M]**
C8201	**F2H0J101A003**	**100P 6.3V**	**[M]**
C8202	**F2G0J101A066**	**100P 6.3V**	**[M]**
C8203	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8204	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8205	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8206	**ECJ1VB0J105K**	**1 6.3V**	**[M]**
C8207	**ECJ1VF1C104Z**	**0.1 16V**	**[M]**
C8208	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8211	**ECJ0EB1A333K**	**0.033 10V**	**[M]**
C8212	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8213	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8214	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8215	**ECJ0EB1E562K**	**5600P 25V**	**[M]**
C8216	**ECJ0EB1C183K**	**0.018 16V**	**[M]**
C8217	**ECJ1VB0J105K**	**1 6.3V**	**[M]**
C8218	**ECJ1VB0J105K**	**1 6.3V**	**[M]**
C8221	**ECJ0EB1A104K**	**0.1 10V**	**[M]**
C8222	**ECJ0EB1A104K**	**0.1 10V**	**[M]**
C8223	**ECJ0EB1A104K**	**0.1 10V**	**[M]**
C8224	**ECJ0EB1A104K**	**0.1 10V**	**[M]**
C8225	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8226	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8227	**ECJ0EF1C104Z**	**0.1 16V**	**[M]**
C8228	**ECJ1VB0J105K**	**1 6.3V**	**[M]**
C8229	**ECJ1VB0J105K**	**1 6.3V**	**[M]**
C8232	**ECJ1VF1C104Z**	**0.1 16V**	**[M]**
C8233	**ECJ0EB1E472K**	**4700P 25V**	**[M]**

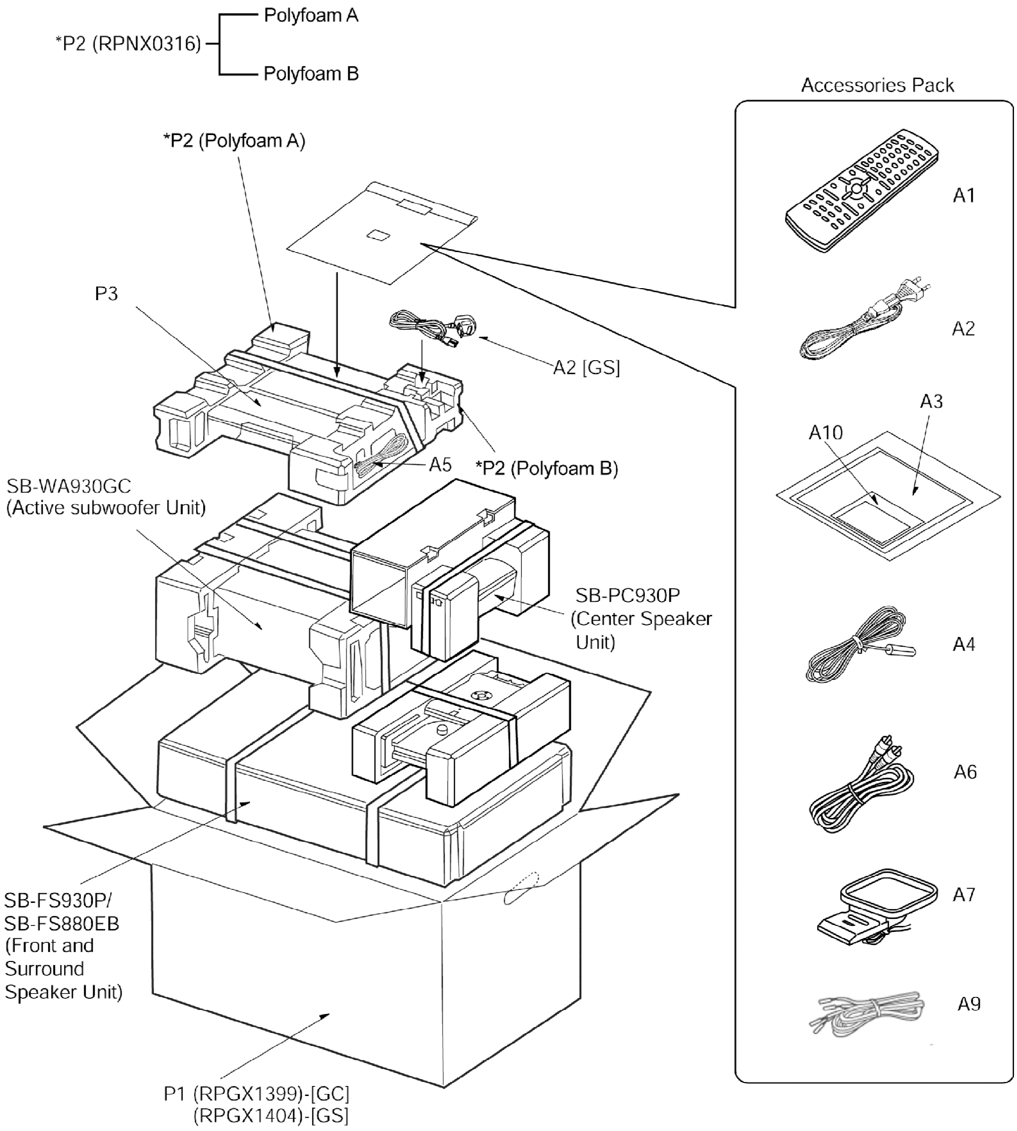
Ref. No.	Part No.	Part Name & Description	Remarks
C8234	ECJ0EF1C104Z	0.1 16V	[M]
C8235	ECJ0EB1H102K	1000P 50V	[M]
C8236	ECJ0EB1H102K	1000P 50V	[M]
C8237	ECJ0EB1H102K	1000P 50V	[M]
C8238	ECJ0EB1H821K	820P 50V	[M]
C8241	ECJ0EB1A104K	0.1 10V	[M]
C8242	ECJ0EB1A104K	0.1 10V	[M]
C8251	F2G0J221A065	220P 6.3V	[M]
C8252	F2G1C470A076	47P 16V	[M]
C8253	F2H1C220A003	22P 16V	[M]
C8254	ECJ0EF1C104Z	0.1 16V	[M]
C8255	ECJ0EF1C104Z	0.1 16V	[M]
C8256	ECJ0EF1C104Z	0.1 16V	[M]
C8257	ECJ0EF1C104Z	0.1 16V	[M]
C8261	ECJ0EF1C104Z	0.1 16V	[M]
C8262	ECJ0EF1C104Z	0.1 16V	[M]
C8301	F2H0J2210006	220P 6.3V	[M]
C8302	F2H0J330A003	33P 6.3V	[M]
C8303	ECJ0EF1C104Z	0.1 16V	[M]
C8304	ECJ1VB0J105K	1 6.3V	[M]
C8307	ECJ0EF1C104Z	0.1 16V	[M]
C8308	ECJ0EC1H150J	15P 50V	[M]
C8311	ECJ0EF1C104Z	0.1 16V	[M]
C8312	ECJ1VB0J105K	1 6.3V	[M]
C8421	F2G0J101A083	100P 6.3V	[M]
C8422	ECJ0EF1C104Z	0.1 16V	[M]
C8423	F2G0J330A083	33P 6.3V	[M]
C8424	ECJ0EF1C104Z	0.1 16V	[M]
C8426	ECJ0EF1C104Z	0.1 16V	[M]
C8427	ECJ0EF1C104Z	0.1 16V	[M]
C8428	ECJ0EF1C104Z	0.1 16V	[M]
C8501	ECJ3YB1A106M	10 10V	[M]
C8502	ECJ0EF1C104Z	0.1 16V	[M]
C8503	ECJ0EF1C104Z	0.1 16V	[M]
C8504	ECJ0EF1C104Z	0.1 16V	[M]
C8505	ECJ0EC1H221J	220P 50V	[M]
C8506	ECJ0EC1H101J	100P 50V	[M]
C8550	F2H0J330A003	33P 6.3V	[M]
C8551	ECJ0EF1C104Z	0.1 16V	[M]
C8552	F2G1C100A072	10P 16V	[M]
C8553	F2H0J470A003	47P 6.3V	[M]
C8554	ECJ1VB0J105K	1 6.3V	[M]
C8561	ECJ0EF1C104Z	0.1 16V	[M]
C8562	F2G1C100A072	10P 16V	[M]
C8563	F2H0J470A003	47P 6.3V	[M]
C8564	ECJ1VB0J105K	1 6.3V	[M]
C8601	ECJ0EF1C104Z	0.1 16V	[M]
C8606	ECJ0EF1C104Z	0.1 16V	[M]
C8607	ECJ0EB0J224K	0.22 6.3V	[M]
C8611	ECJ0EF1C104Z	0.1 16V	[M]
C8621	ECJ0EC1H120J	12P 50V	[M]
C8622	ECJ0EC1H120J	12P 50V	[M]
C8651	ECJ0EF1C104Z	0.1 16V	[M]
C8652	ECJ0EF1C104Z	0.1 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C8691	ECJ0EF1C104Z	0.1 16V	[M]
C8695	ECJ0EF1C104Z	0.1 16V	[M]

28.3. Packing Materials & Accessories Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPGX1399	PACKING CASE	[M]GC
P1	RPGX1404	PACKING CASE	[M]GS
P2	RPNX0302	POLYFOAM	[M]
P3	RPFX0058	MIRAMAT SHEET	[M]
		ACCESSORIES	
A1	EUR7722XE0	REMOTE CONTROLLER	[M]
A1-1	UR76EC3103A	R/C BATTERY COVER	[M]
A2	K2CQ2CA00002	AC CORD	[M] ⚠
A2	RJA0053-3X	AC CORD	[M] ⚠ GS
A3	RQT7985-B	O/I BOOK (EN)	[M]
A3	RQT7986-G	O/I BOOK (CN,AR)	[M]
A4	RSA0007-L	FM INDOOR ANTENNA	[M]
A5	K1HA25HA0001	SYSTEM CABLE	[M]
A6	K2KA2BA00001	VIDEO CABLE	[M]
A7	N1DAAAA00001	AM LOOP ANTENNA	[M]
A9	REE1203A-1J	SPEAKER CABLE	[M]
A10	RQCA1029	SPEAKER LABEL	[M]

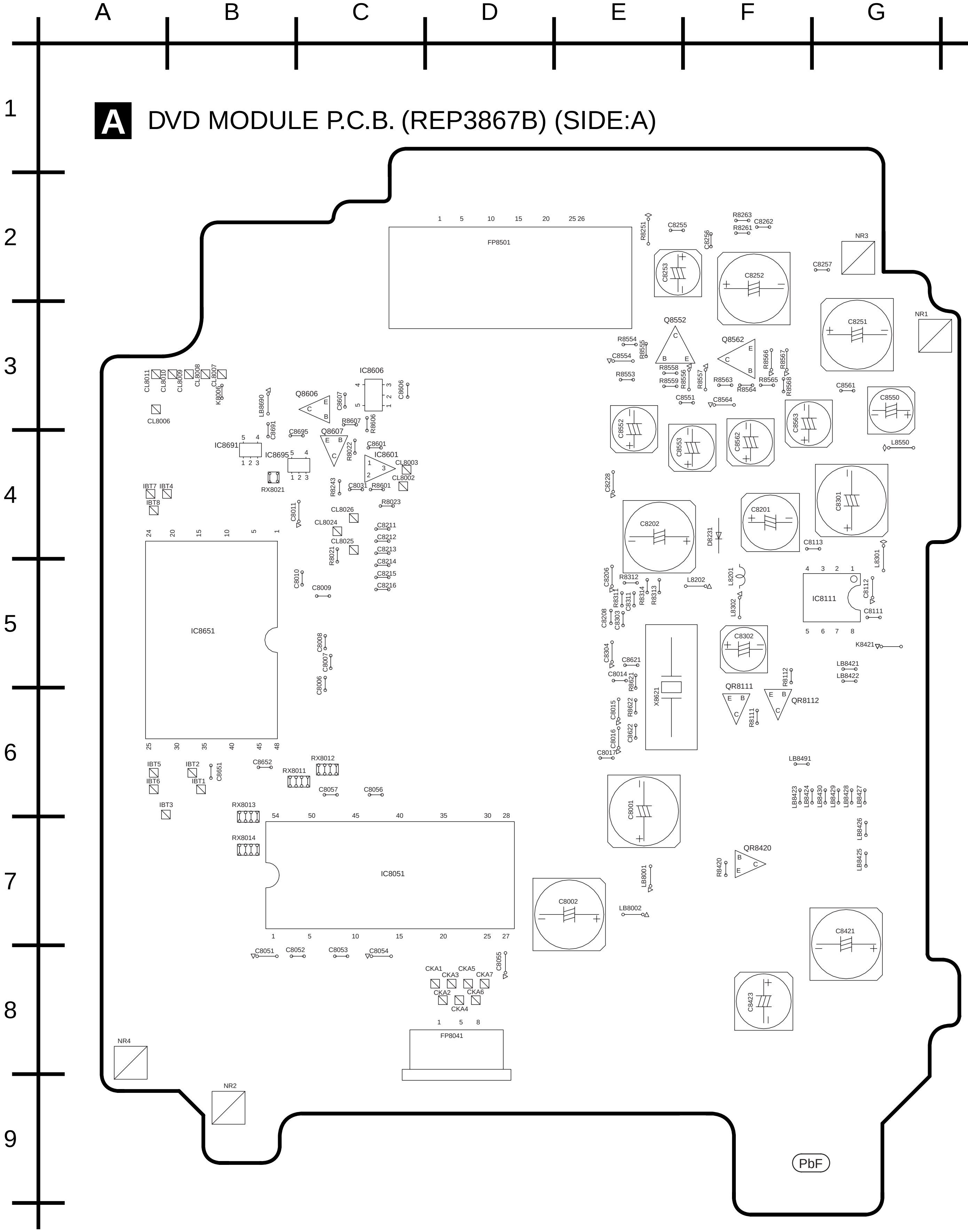
28.4. Packaging


*P2 (RPNX0316)
Polyfoam A
Polyfoam B
Accessories Pack
*P2 (Polyfoam A)
A1
P3
A2
A2 [GS]
A3
A10
A5
*P2 (Polyfoam B)
SB-WA930GC
(Active subwoofer Unit)
SB-PC930P
(Center Speaker
Unit)
A4
A6
A7
SB-FS930P/
SB-FS880EB
(Front and
Surround
Speaker Unit)
A9
P1 (RPGX1399)-[GC]
(RPGX1404)-[GS]

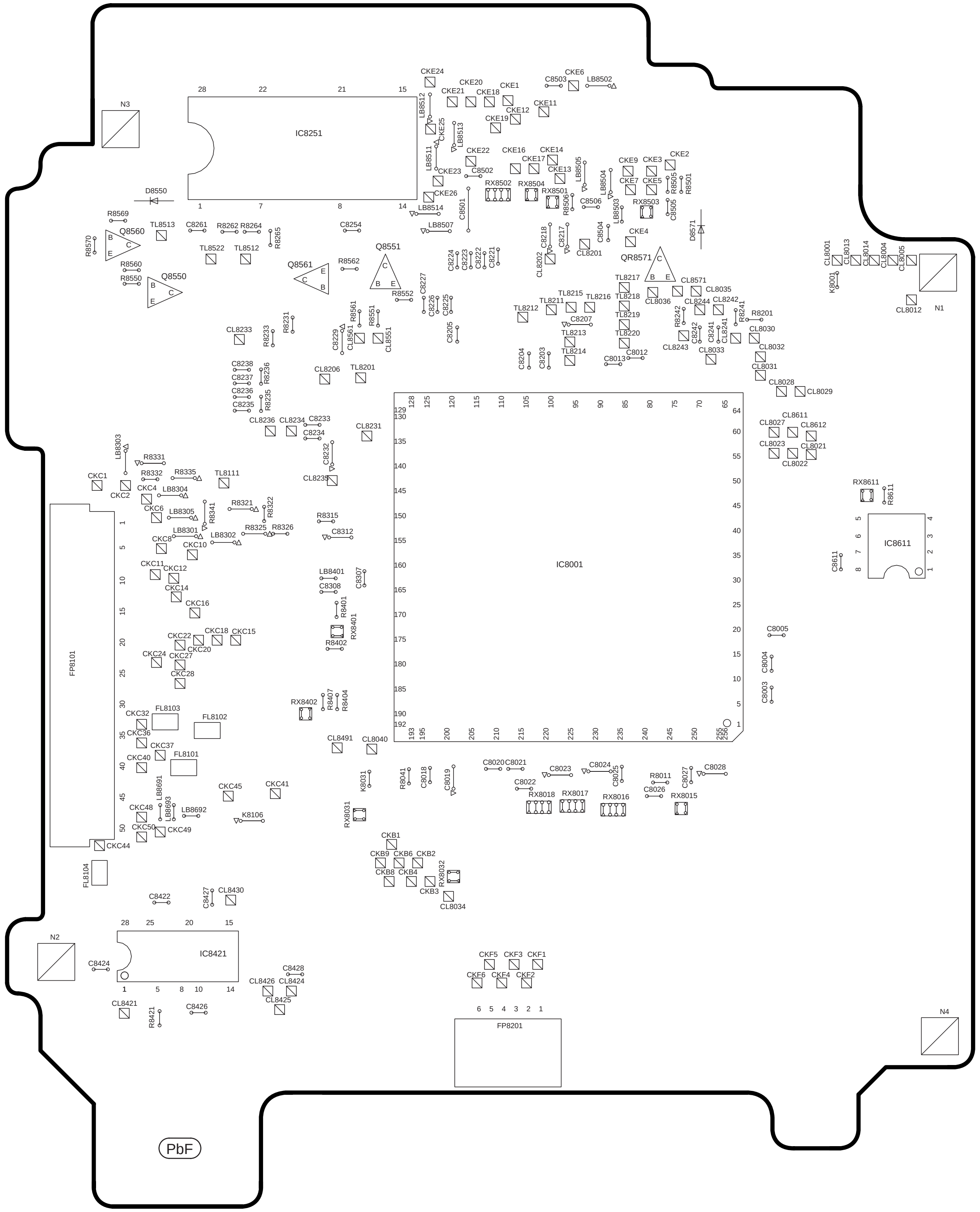
29. Schematic Diagram for printing with letter size

Ref No.	IC8001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	3.1	3.0	0	3.1	3.3	3.4	3.0	3.1	0	0	3.1	3.4	2.9	3.1	3.0	0	3.0	3.0	3.4	0
Ref No.	IC8001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	3.4	-	-	1.5	0.8	1.2	1.0	3.4	0	0.5	1.0	-	-	3.4	0	-	-	2.4	-	-
Ref No.	IC8001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	-	-	-	1.2	-	-	-	3.4	0	-	-	2.5	0	0	0	-	-	-	-	-
Ref No.	IC8001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	-	3.4	0	0	0.1	1.0	1.0	3.0	2.8	3.1	0.1	0.1	3.2	0	1.7	.0	1.7	0.1	3.4	0
Ref No.	IC8001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	3.4	0.1	3.4	3.4	0.1	0.1	0	0.1	1.2	0	0	0	0	0.1	0.1	0	0	3.4	0.8	0.1
Ref No.	IC8001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
CD PLAY	2.4	2.1	1.9	0.3	0	1.9	3.4	2.1	2.1	1.9	1.8	1.1	1.1	1.7	1.7	1.7	1.7	3.3	2.0	1.7
Ref No.	IC8001																			
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
CD PLAY	1.5	0	0	0.1	0	0	2.3	1.7	2.6	2.6	2.6	2.6	2.6	2.6	2.4	2.4	0	2.4	0	0
Ref No.	IC8001																			
MODE	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
CD PLAY	0.5	0	0	0	0	1.1	2.2	1.7	2.6	2.6	2.6	2.6	2.6	2.6	2.4	2.4	0	2.4	3.4	0
Ref No.	IC8001																			
MODE	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
CD PLAY	3.4	0	0	0	0	3.4	3.4	1.7	0	1.7	0.9	1.2	0	0	0	0.9	1.7	3.4	0	3.4
Ref No.	IC8001																			
MODE	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
CD PLAY	0	3.4	0	0	-	-	-	-	-	3.4	0	1.0	1.7	0	1.5	3.4	1.3	0.5	1.5	1.4
Ref No.	IC8001																			
MODE	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220
CD PLAY	0	3.4	3.4	1.2	0	1.7	1.4	1.4	3.4	3.4	1.0	1.8	0	-	-	3.4	2	0	1.2	1.6
Ref No.	IC8001																			
MODE	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
CD PLAY	0.2	0	1.7	0.2	3.4	1.7	0.1	0.9	0	0.1	3.4	1.6	-	2.2	0	1.2	0.1	0.1	3.4	3.2
Ref No.	IC8001																			
MODE	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256				
CD PLAY	1.7	0	1.7	3.3	3.4	3.4	0	3.3	2.6	0	3.6	2.8	0	2.9	3.4	2.9				
Ref No.	IC8051																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	3.4	3.2	3.4	3.1	3.2	0.1	3.2	3.4	3.1	3.0	-	0.1	2.9	3.4	2.7	3.3	3.3	3.3	3.0	2.2
Ref No.	IC8051																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	1.6	0.1	-	-	-	-	3.4	0	-	-	-	-	-	-	-	-	3.4	1.7	2.7	-
Ref No.	IC8051																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54						
CD PLAY	0.1	3.0	3.4	3.2	3.1	0	3.0	3.1	3.4	2.8	2.8	0	2.9	0						
Ref No.	IC8111																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	3.4	0	0.1	-	-	0	0	4.9												
Ref No.	IC8251																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	1.7	1.7	1.7	1.9	1.9	1.8	0	4.9	3.4	0.1	2.6	2.4	2.5	2.5	4.5	4.6	5.1	4.0	0.1	0.6
Ref No.	IC8251																			
MODE	21	22	23	24	25	26	27	28												
CD PLAY	9.6	9.4	1.8	1.7	1.7	1.7	3.4	3.2												
Ref No.	IC8421																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	3.4	3.0	3.4	1.7	0.9	1.7	1.7	4.8	0	0.9	0.1	0.1	0	2.4	2.4	4.9	0	2.4	2.4
Ref No.	IC8421																			
MODE	21	22	23	24	25	26	27	28												
CD PLAY	2.4	4.9	-	0	2.5	2.4	2.4	4.8												
Ref No.	IC8601																			
MODE	1	2	3																	
CD PLAY	0	3.2	3.4																	
Ref No.	IC8606																			
MODE	1	2	3	4	5															
CD PLAY	0.7	1.2	0	0	0															
Ref No.	IC8611																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0.1	0.1	0.1	0.1	3.4	3.4	0.1	3.4												
Ref No.	IC8651																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	-	-	-	-	-	-	-	-	-	-	-	2.9	3.4	3.4	1.0	-	-	-	-	-
Ref No.	IC8651																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	-	-	-	-	-	2.4	0	1.9	1.0	1.0	1.0	1.0	1.4	1.2	1.5	1.5	3.4	1.4	1.2	1.3
Ref No.	IC8651																			
MODE	41	42	43	44	45	46	47	48												
CD PLAY	1.4	1.4	1.7	1.7	1.9	0	3.4	-												
Ref No.	IC8691										IC8695									
MODE	1	2	3	4	5						1	2	3	4	5					
CD PLAY	3.0	3.0	0.1	4.3	4.9						0	0	0	0	4.9					
Ref No.	Q8550				Q8551				Q8552				Q8560				Q8561			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	4.9	4.8	4.2		0.1	4.8	0.1		4.8	0	4.8		0.1	0.1	0.7		1.5	3.5	2.1	
Ref No.	Q8562				Q8606				Q8607											
MODE	E	C	B		E	C	B		E	C	B									
CD PLAY	4.2	2.3	3.6		0	0.1	0.7		0	3.2	0.1									
Ref No.	QR8111				QR8112				QR8420				QR8571							
MODE	E	C	B		E	C	B		E	C	B		E	C	B					
CD PLAY	0.1	0.1	1.2		0.1	4.5	0.1		0	4.0	0.1		3.4	3.3	0.1					

A DVD MODULE P.C.B. (REP3867B) (SIDE:A)

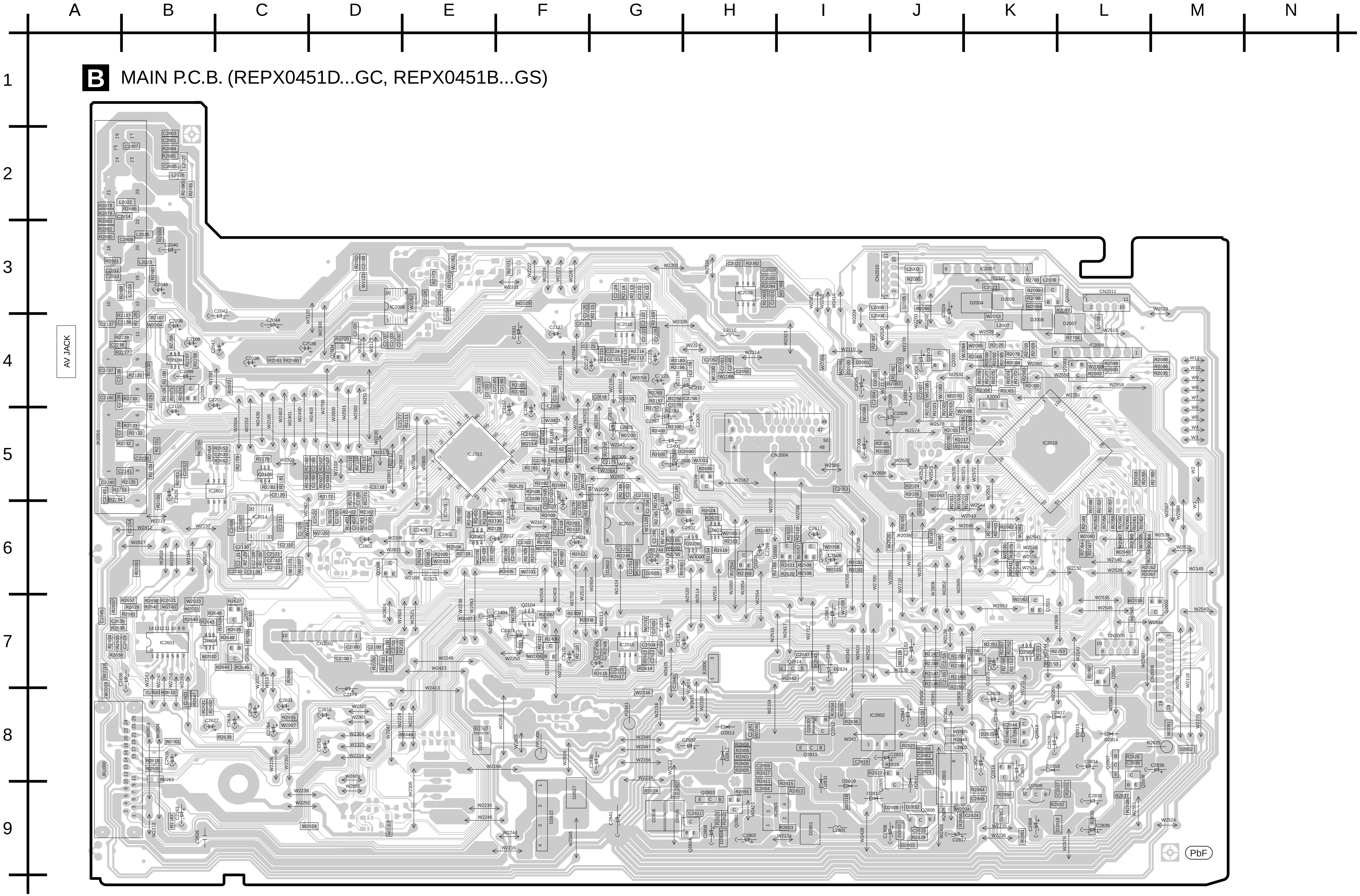

A
B
C
D
E
F
G
H
I
J
K
L
M
N
1
2
3
4
5
6
7
8
9
FP8501
NR3
NR1
NR4
NR2
C8252
C8251
C8253
Q8552
Q8562
C8550
C8552
C8553
C8562
C8563
C8202
C8201
C8301
IC8606
IC8691
IC8695
IC8601
Q8606
Q8607
IC8651
IC8111
C8302
QR8111
QR8112
X8621
C8001
C8002
QR8420
IC8051
C8421
C8423
FP8041
PbF

A DVD MODULE P.C.B. (REP3867B) (SIDE:B)


N3
N1
N2
N4
IC8251
D8550
Q8560
Q8550
Q8561
Q8551
QR8571
D8571
IC8001
IC8611
FP8101
FL8103
FL8102
FL8101
FL8104
IC8421
FP8201
PbF

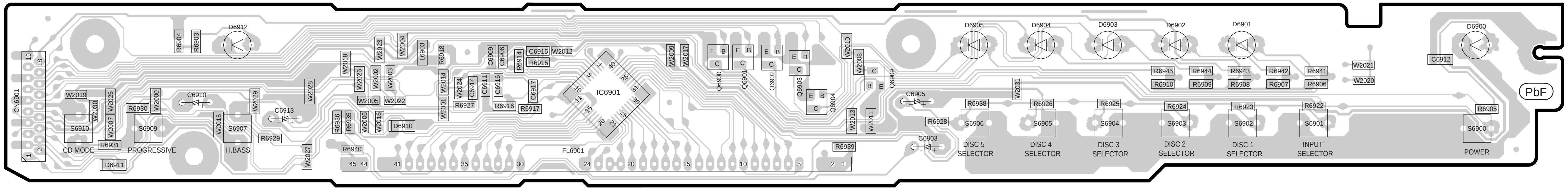
SA-HT930GC/GS DVD MODULE P.C.B.

B MAIN P.C.B. (REPX0451D...GC, REPX0451B...GS)

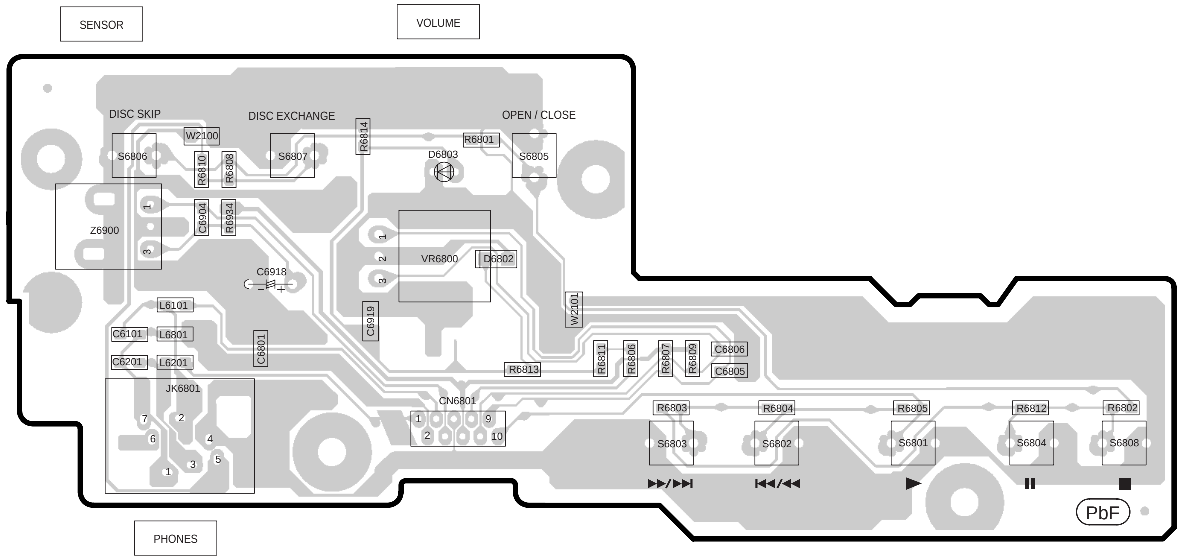

A
B
C
D
E
F
G
H
I
J
K
L
M
N
1
2
3
4
5
6
7
8
9
AV JACK
JK2001
JK2000
IC2011
IC2018
IC2013
IC2015
IC2010
IC2019
IC2014
IC2601
IC2602
IC2802
IC2803
IC2006
IC2007
IC2008
CN2004
CN2002
CN2008
CN2009
CN2010
CN2011
E2000
FP2000
X2000
PbF

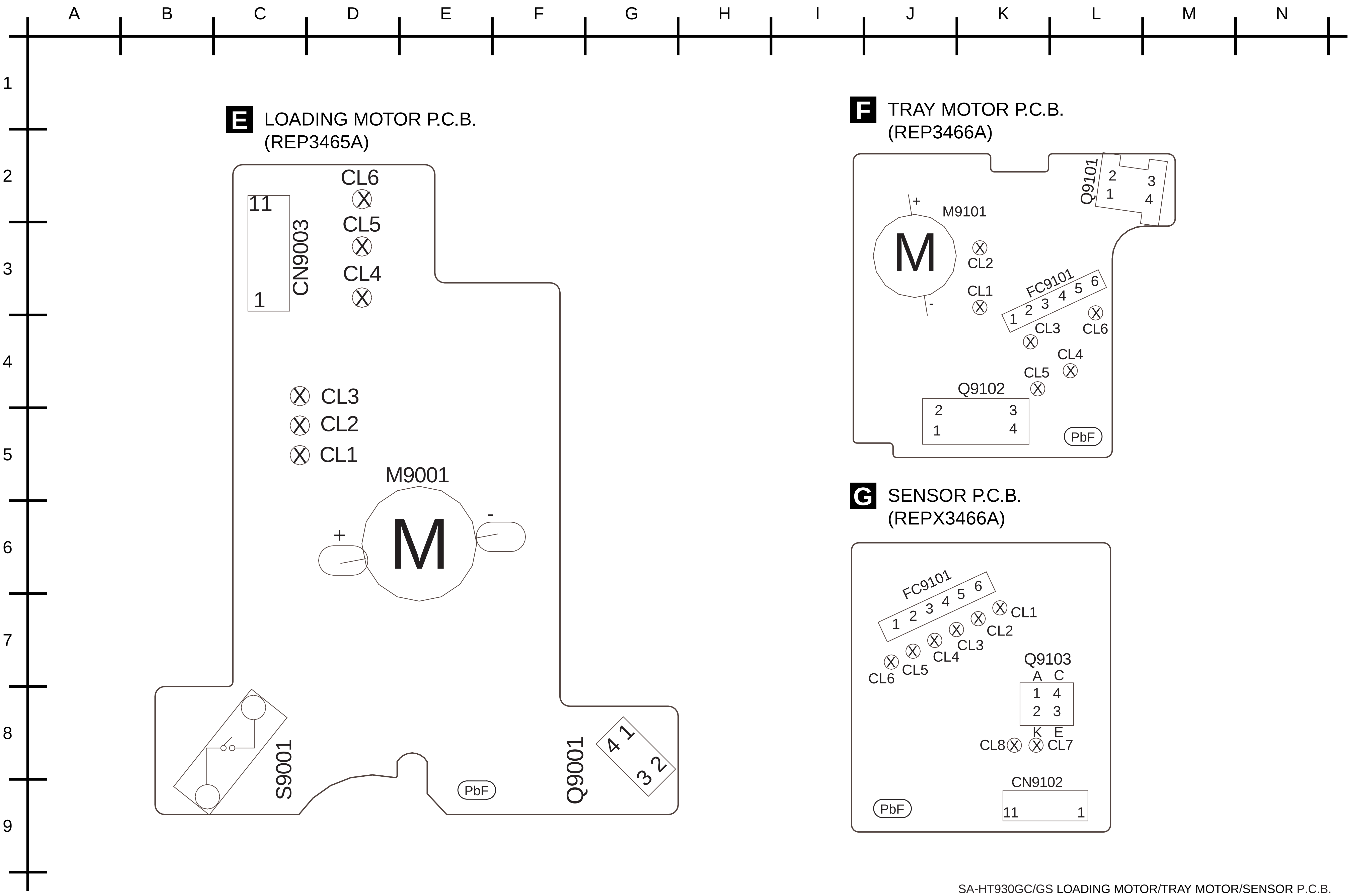
SA-HT930GC/GS MAIN P.C.B.

C FL P.C.B. (REPX0455A)


CN6901
S6910
CD MODE
S6909
PROGRESSIVE
S6907
H.BASS
D6912
C6910
C6913
IC6901
FL6901
D6905
D6904
D6903
D6902
D6901
D6900
S6906
DISC 5
SELECTOR
S6905
DISC 4
SELECTOR
S6904
DISC 3
SELECTOR
S6903
DISC 2
SELECTOR
S6902
DISC 1
SELECTOR
S6901
INPUT
SELECTOR
S6900
POWER
PbF

D HEADPHONE P.C.B. (REPX0455A)


SENSOR
VOLUME
DISC SKIP
DISC EXCHANGE
OPEN / CLOSE
S6806
S6807
S6805
D6803
Z6900
VR6800
C6918
JK6801
CN6801
S6803
S6802
S6801
S6804
S6808
▶▶/▶▶I
I◀◀/◀◀
▶
II
■
PbF
PHONES

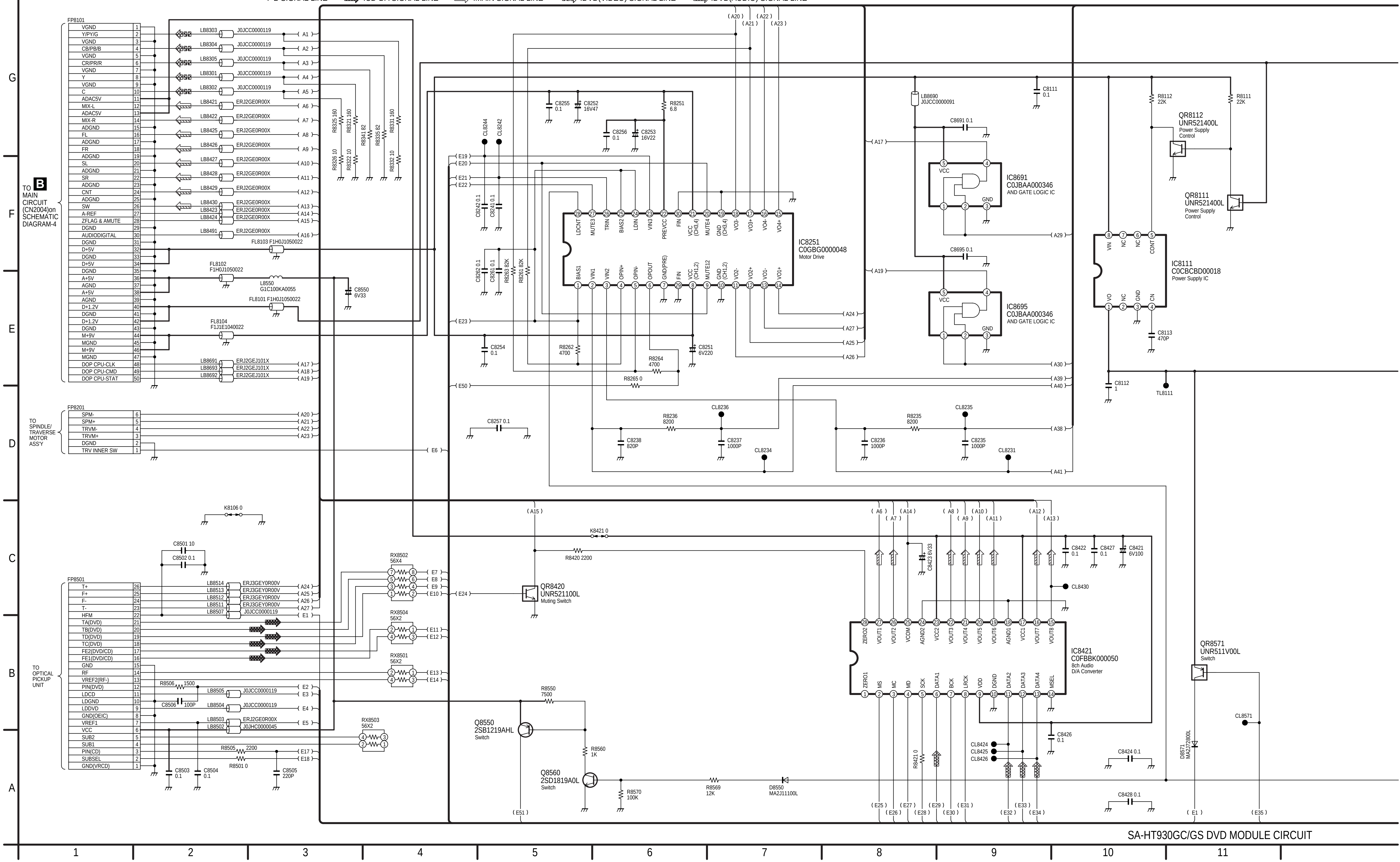

A B C D E F G H I J K L M N
1 2 3 4 5 6 7 8 9
E LOADING MOTOR P.C.B.
(REP3465A)
CL6
CL5
CL4
CN9003
11
1
CL3
CL2
CL1
M9001
M
+
-
S9001
PbF
Q9001
4 1
3 2
F TRAY MOTOR P.C.B.
(REP3466A)
M9101
M
+
-
Q9101
2 3
1 4
CL2
CL1
FC9101
1 2 3 4 5 6
CL3
CL6
CL4
CL5
Q9102
2 3
1 4
PbF
G SENSOR P.C.B.
(REPX3466A)
FC9101
1 2 3 4 5 6
CL1
CL2
CL3
CL4
CL5
CL6
Q9103
A C
1 4
2 3
K E
CL8
CL7
CN9102
11 1
PbF

SA-HT930GC/GS LOADING MOTOR/TRAY MOTOR/SENSOR P.C.B.

SCHEMATIC DIAGRAM-1

A DVD MODULE CIRCUIT

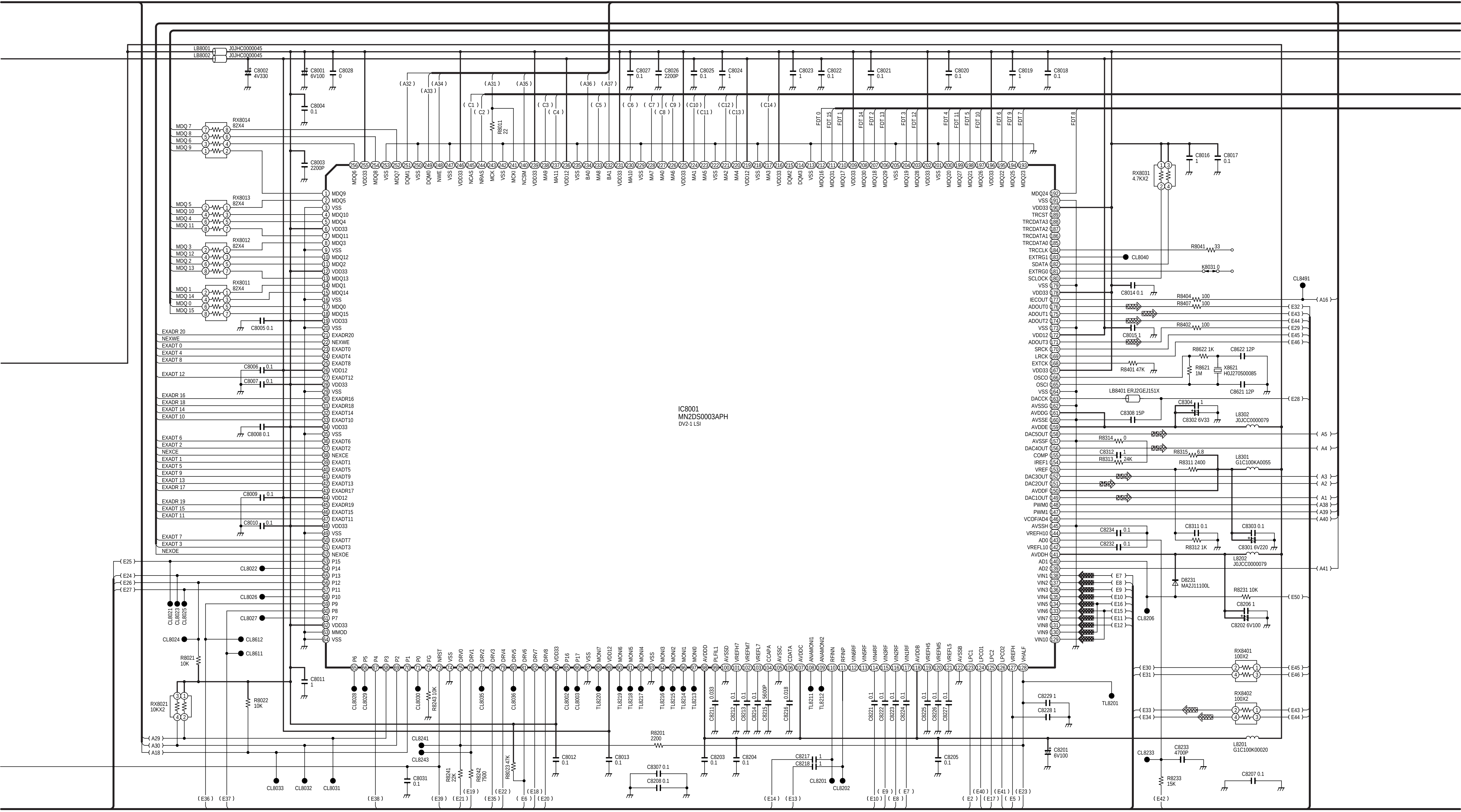
—— :+B SIGNAL LINE ▨ :CD-DA SIGNAL LINE ⇨ :MAIN SIGNAL LINE ▨ :DVD(VIDEO) SIGNAL LINE ▨ :DVD(AUDIO) SIGNAL LINE


G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
FP8101
VGND
Y/PY/G
CB/PB/B
CR/PR/R
Y
C
ADAC5V
MIX-L
MIX-R
ADGND
FL
FR
SL
SR
CNT
SW
A-REF
ZFLAG & AMUTE
DGND
AUDIODIGITAL
D+5V
A+5V
AGND
D+1.2V
M+9V
MGND
DOP CPU-CLK
DOP CPU-CMD
DOP CPU-STAT
TO B MAIN CIRCUIT (CN2004)on SCHEMATIC DIAGRAM-4
FP8201
SPM-
SPM+
TRVM-
TRVM+
TRV INNER SW
TO SPINDLE/ TRAVERSE MOTOR ASS'Y
FP8501
T+
F+
F-
T-
HFM
TA(DVD)
TB(DVD)
TD(DVD)
TC(DVD)
FE2(DVD/CD)
FE1(DVD/CD)
GND
RF
VREF2(RF-)
PIN(DVD)
LDCD
LDGND
LDDVD
GND(OEIC)
VREF1
VCC
SUB2
SUB1
PIN(CD)
SUBSEL
GND(VRCD)
TO OPTICAL PICKUP UNIT
LB8303 J0JCC0000119
LB8304 J0JCC0000119
LB8305 J0JCC0000119
LB8301 J0JCC0000119
LB8302 J0JCC0000119
LB8421 ERJ2GE0R00X
LB8422 ERJ2GE0R00X
LB8425 ERJ2GE0R00X
LB8426 ERJ2GE0R00X
LB8427 ERJ2GE0R00X
LB8428 ERJ2GE0R00X
LB8429 ERJ2GE0R00X
LB8430 ERJ2GE0R00X
LB8423 ERJ2GE0R00X
LB8424 ERJ2GE0R00X
LB8491 ERJ2GE0R00X
FL8103 F1H0J1050022
FL8102 F1H0J1050022
L8550 G1C100KA0055
C8550 6V33
FL8101 F1H0J1050022
FL8104 F1J1E1040022
LB8691 ERJ2GEJ101X
LB8693 ERJ2GEJ101X
LB8692 ERJ2GEJ101X
R8325 160
R8321 160
R8341 82
R8335 82
R8331 160
R8326 10
R8322 10
R8332 10
CL8244
CL8242
C8242 0.1
C8241 0.1
C8262 0.1
C8261 0.1
R8263 82K
R8261 82K
C8255 0.1
C8252 16V47
C8256 0.1
C8253 16V22
R8251 6.8
IC8251 C0GBG0000048 Motor Drive
LDCNT
MUTE3
TRIN
BIAS2
LDIN
VIN3
PREVCC
FIN
VCC (CH3,4)
MUTE4
GND (CH3,4)
VO3-
VO3+
VO4-
VO4+
BIAS1
VIN1
VIN2
OPIN+
OPIN-
OPOUT
GND(PRE)
VCC (CH1,2)
MUTE12
GND (CH1,2)
VO2-
VO2+
VO1-
VO1+
C8254 0.1
R8262 4700
R8264 4700
C8251 6V220
R8265 0
C8257 0.1
R8236 8200
CL8236
C8238 820P
C8237 1000P
CL8234
R8235 8200
CL8235
C8236 1000P
C8235 1000P
CL8231
LB8690 J0JCC0000091
C8111 0.1
C8691 0.1
IC8691 C0JBAA000346 AND GATE LOGIC IC
C8695 0.1
IC8695 C0JBAA000346 AND GATE LOGIC IC
VCC
GND
R8112 22K
R8111 22K
QR8112 UNR521400L Power Supply Control
QR8111 UNR521400L Power Supply Control
IC8111 C0CBCBD00018 Power Supply IC
VIN
NC
CONT
VO
CN
C8113 470P
C8112 1
TL8111
K8106 0
C8501 10
C8502 0.1
LB8514 ERJ3GEY0R00V
LB8513 ERJ3GEY0R00V
LB8512 ERJ3GEY0R00V
LB8511 ERJ3GEY0R00V
LB8507 J0JCC0000119
RX8502 56X4
RX8504 56X2
RX8501 56X2
RX8503 56X2
R8506 1500
C8506 100P
LB8505 J0JCC0000119
LB8504 J0JCC0000119
LB8503 ERJ2GE0R00X
LB8502 J0JHC0000045
R8505 2200
R8501 0
C8503 0.1
C8504 0.1
C8505 220P
K8421 0
R8420 2200
QR8420 UNR521100L Muting Switch
R8550 7500
Q8550 2SB1219AHL Switch
R8560 1K
Q8560 2SD1819A0L Switch
R8570 100K
R8569 12K
D8550 MA2J11100L
C8423 6V33
C8422 0.1
C8427 0.1
C8421 6V100
CL8430
IC8421 C0FBBK000050 8ch Audio D/A Converter
ZERO2
VOUT1
VOUT2
VCOM
AGND2
VCC2
VOUT3
VOUT4
VOUT5
VOUT6
AGND1
VCC1
VOUT7
VOUT8
ZERO1
MS
MC
MD
SCK
DATA1
BCK
LRCK
VDD
DGND
DATA2
DATA3
DATA4
MSEL
C8426 0.1
CL8424
CL8425
CL8426
R8421 0
C8424 0.1
C8428 0.1
QR8571 UNR511V00L Switch
CL8571
D8571 MA2J72800L
SA-HT930GC/GS DVD MODULE CIRCUIT

SCHEMATIC DIAGRAM-2

A DVD MODULE CIRCUIT

—— :+B SIGNAL LINE ▨ :CD-DA SIGNAL LINE ▨ :DVD(VIDEO) SIGNAL LINE ▨ :DVD(AUDIO) SIGNAL LINE

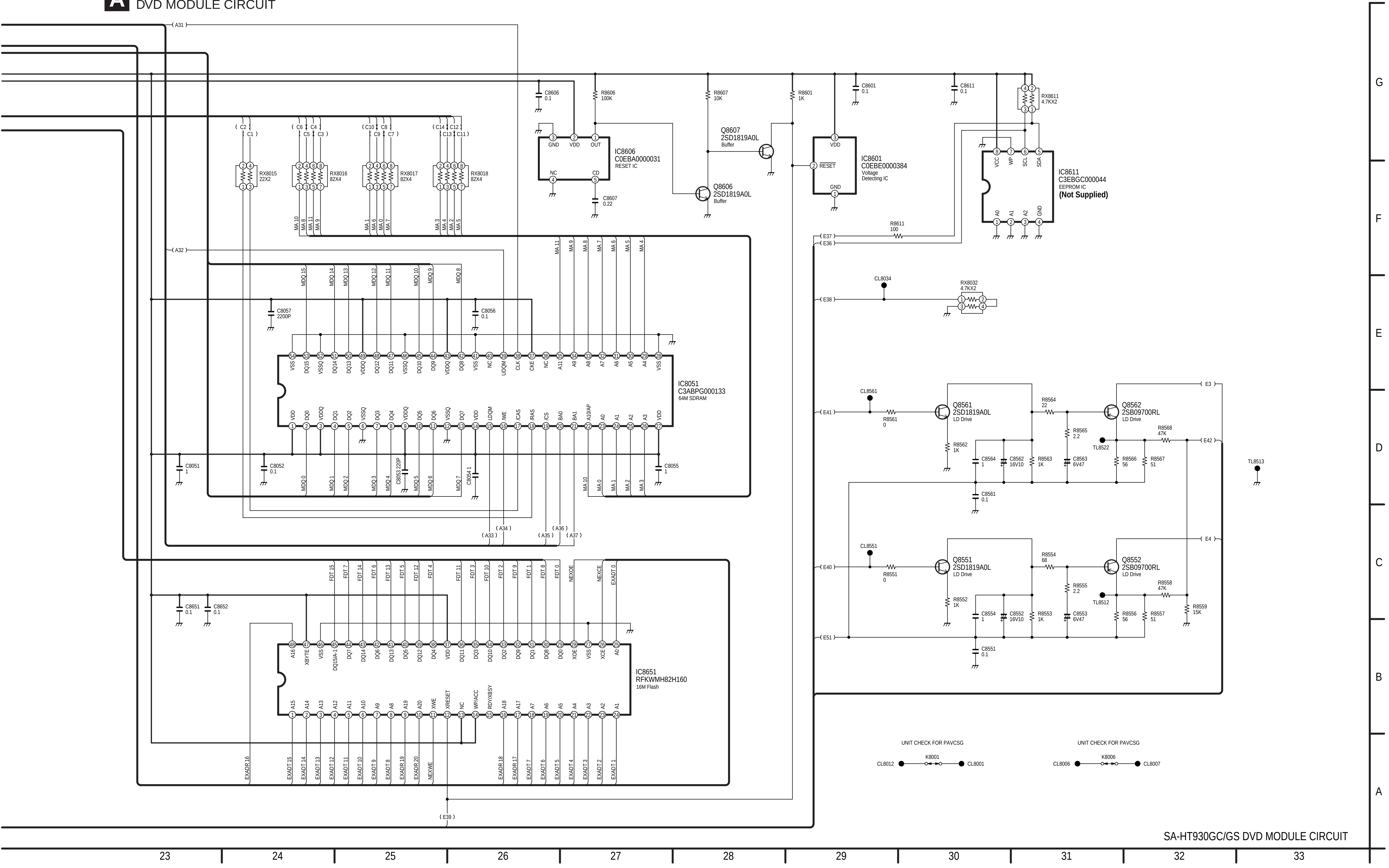

IC8001
MN2DS0003APH
DV2-1 LSI
LB8001 J0JHC0000045
LB8002 J0JHC0000045
C8002 4V330
C8001 6V100
C8028 0
C8004 0.1
C8003 2200P
C8027 0.1
C8026 2200P
C8025 0.1
C8024 1
C8023 1
C8022 0.1
C8021 0.1
C8020 0.1
C8019 1
C8018 0.1
C8016 1
C8017 0.1
RX8031 4.7KX2
RX8014 82X4
RX8013 82X4
RX8012 82X4
RX8011 82X4
R8011 22
C8005 0.1
C8006 0.1
C8007 0.1
C8008 0.1
C8009 0.1
C8010 0.1
C8011 1
C8012 0.1
C8013 0.1
C8014 0.1
C8015 1
CL8040
R8041 33
K8031 0
CL8491
R8404 100
R8407 100
R8402 100
R8622 1K
C8622 12P
R8621 1M
X8621 H0J270500085
C8621 12P
R8401 47K
LB8401 ERJ2GEJ151X
C8304 1
C8302 6V33
C8308 15P
L8302 J0JCC0000079
R8314 0
C8312 1
R8313 24K
R8315 6.8
R8311 2400
L8301 G1C100KA0055
C8234 0.1
C8232 0.1
C8311 0.1
R8312 1K
C8303 0.1
C8301 6V220
L8202 J0JCC0000079
D8231 MA2J11100L
R8231 10K
C8206 1
C8202 6V100
CL8206
RX8401 100X2
RX8402 100X2
C8229 1
C8228 1
TL8201
C8201 6V100
CL8233
C8233 4700P
R8233 15K
L8201 G1C100K00020
C8207 0.1
C8205 0.1
C8203 0.1
C8204 0.1
C8217 1
C8218 1
CL8201
CL8202
R8201 2200
C8307 0.1
C8308 0.1
CL8241
CL8243
C8031 0.1
R8241 22K
R8242 7500
R8023 47K
R8243 10K
CL8033
CL8032
CL8031
RX8021 10KX2
R8021 10K
R8022 10K
CL8024
CL8612
CL8611
CL8021
CL8023
CL8025
CL8022
CL8026
CL8027
MDQ 0–MDQ 15
EXADR 16–EXADR 20
EXADT 0–EXADT 17
NEXWE
NEXCE
NEXOE
FDT 0–FDT 15
A1–A41
E2–E50
C1–C14

SA-HT930GC/GS DVD MODULE CIRCUIT

12 13 14 15 16 17 18 19 20 21 22

SCHEMATIC DIAGRAM-3

A DVD MODULE CIRCUIT



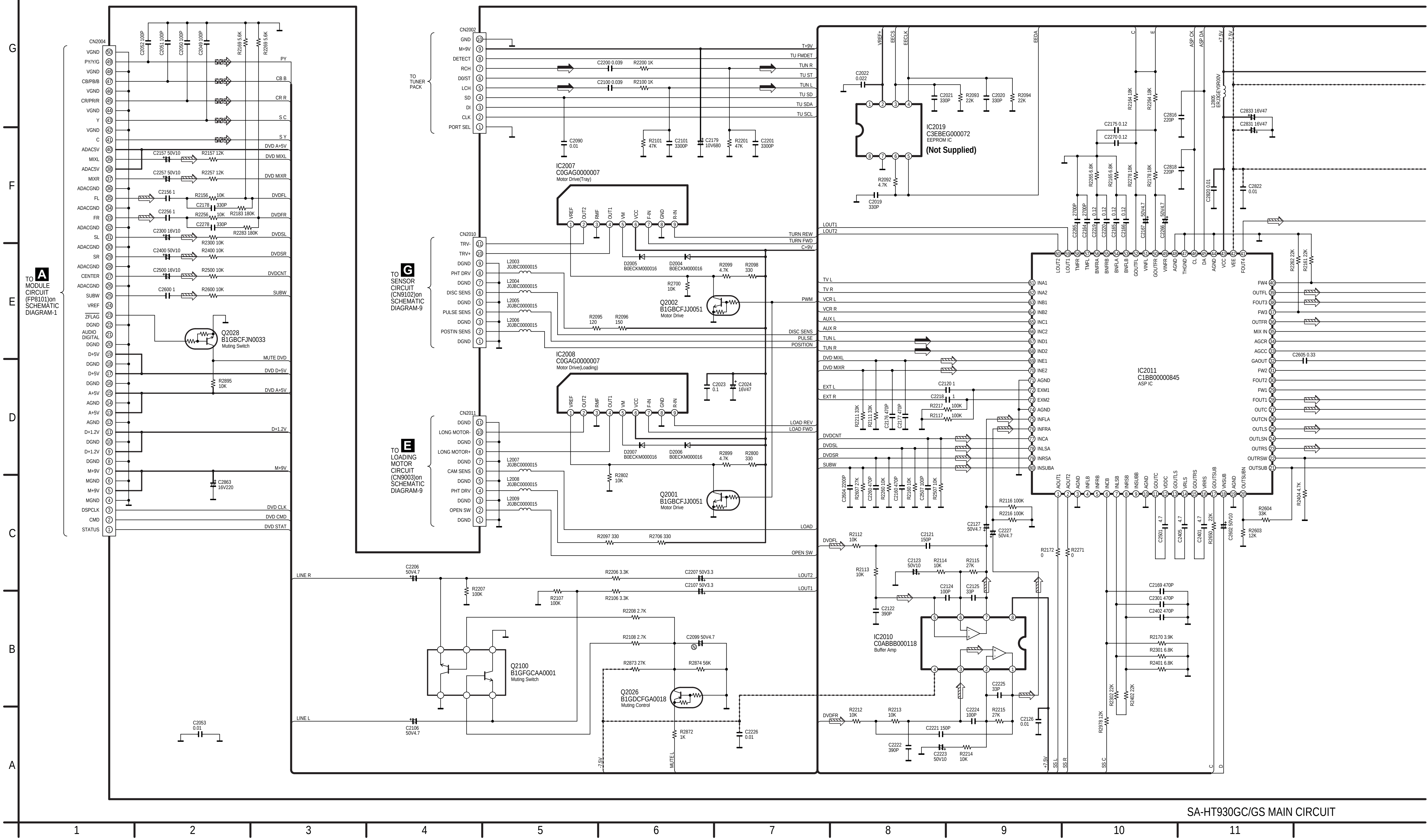
A31
A32
A33
A34
A35
A36
A37
C2
C1
C6
C5
C4
C3
C10
C9
C8
C7
C14
C13
C12
C11
RX8015 22X2
RX8016 82X4
RX8017 82X4
RX8018 82X4
MA 10
MA 8
MA 11
MA 9
MA 1
MA 6
MA 0
MA 7
MA 3
MA 4
MA 2
MA 5
C8606 0.1
R8606 100K
IC8606 C0EBA0000031 RESET IC
GND
VDD
OUT
NC
CD
C8607 0.22
R8607 10K
Q8607 2SD1819A0L Buffer
Q8606 2SD1819A0L Buffer
R8601 1K
C8601 0.1
IC8601 C0EBE0000384 Voltage Detecting IC
RESET
C8611 0.1
RX8611 4.7KX2
IC8611 C3EBGC000044 EEPROM IC
(Not Supplied)
VCC
WP
SCL
SDA
A0
A1
A2
R8611 100
E37
E36
E38
CL8034
RX8032 4.7KX2
C8057 2200P
C8056 0.1
MDQ 15
MDQ 14
MDQ 13
MDQ 12
MDQ 11
MDQ 10
MDQ 9
MDQ 8
IC8051 C3ABPG000133 64M SDRAM
VSS
DQ15
VSSQ
DQ14
DQ13
VDDQ
DQ12
DQ11
DQ10
DQ9
DQ8
UDQM
CLK
CKE
A11
A9
A8
A7
A6
A5
A4
DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
LDQM
/WE
/CAS
/RAS
/CS
BA0
BA1
A10/AP
A3
C8051 1
C8052 0.1
C8053 220P
C8054 1
C8055 1
MDQ 0
MDQ 1
MDQ 2
MDQ 3
MDQ 4
MDQ 5
MDQ 6
MDQ 7
MA 10
MA 0
MA 1
MA 2
MA 3
CL8561
E41
R8561 0
Q8561 2SD1819A0L LD Drive
R8562 1K
C8564 1
C8562 16V10
R8563 1K
R8564 22
R8565 2.2
C8563 6V47
C8561 0.1
Q8562 2SB09700RL LD Drive
TL8522
R8566 56
R8567 51
R8568 47K
E3
E42
TL8513
CL8551
E40
R8551 0
Q8551 2SD1819A0L LD Drive
R8552 1K
C8554 1
C8552 16V10
R8553 1K
R8554 68
R8555 2.2
C8553 6V47
C8551 0.1
Q8552 2SB09700RL LD Drive
TL8512
R8556 56
R8557 51
R8558 47K
R8559 15K
E4
E51
C8651 0.1
C8652 0.1
FDT 15
FDT 7
FDT 14
FDT 6
FDT 13
FDT 5
FDT 12
FDT 4
FDT 11
FDT 3
FDT 10
FDT 2
FDT 9
FDT 1
FDT 8
FDT 0
NEXOE
NEXCE
EXADT 0
IC8651 RFKWMH82H160 16M Flash
A16
XBYTE
DQ15/A-1
DQ7
DQ14
DQ6
DQ13
DQ5
DQ12
DQ4
VDD
DQ11
DQ3
DQ10
DQ2
DQ9
DQ1
DQ8
DQ0
XOE
XCE
A15
A14
A13
A12
A10
A19
A20
XWE
XRESET
WP/ACC
RDY/XBSY
A18
A17
EXADR 16
EXADT 15
EXADT 14
EXADT 13
EXADT 12
EXADT 11
EXADT 10
EXADT 9
EXADT 8
EXADR 19
EXADR 20
NEXWE
EXADR 18
EXADR 17
EXADT 7
EXADT 6
EXADT 5
EXADT 4
EXADT 3
EXADT 2
EXADT 1
E39
UNIT CHECK FOR PAVCSG
CL8012
K8001
CL8001
UNIT CHECK FOR PAVCSG
CL8006
K8006
CL8007
23
24
25
26
27
28
29
30
31
32
33
G
F
E
D
C
B
A

SA-HT930GC/GS DVD MODULE CIRCUIT

SCHEMATIC DIAGRAM-4

B MAIN CIRCUIT

:+B SIGNAL LINE :-B SIGNAL LINE :MAIN SIGNAL LINE :DVD(VIDEO) SIGNAL LINE :FM/AM SIGNAL LINE

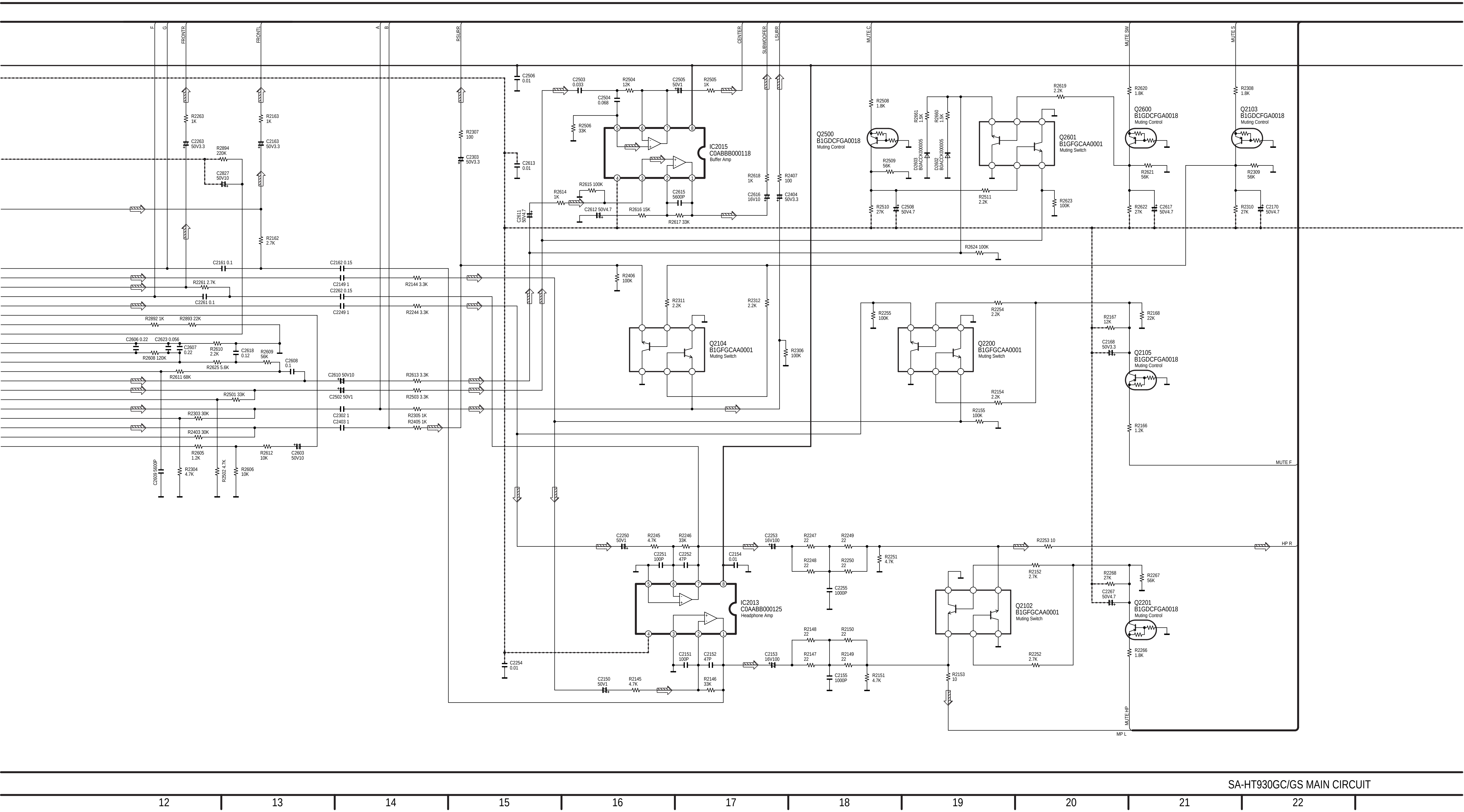

G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
CN2004
VGND
PY/Y/G
CB/PB/B
CR/PR/R
Y
C
ADAC5V
MIXL
MIXR
ADACGND
FL
FR
SL
SR
CENTER
SUBW
VREF
ZFLAG
DGND
AUDIO DIGITAL
D+5V
A+5V
AGND
D+1.2V
M+9V
MGND
DSPCLK
CMD
STATUS
TO A MODULE CIRCUIT (FP8101)on SCHEMATIC DIAGRAM-1
PY
CB B
CR R
S C
S Y
DVD A+5V
DVD MIXL
DVD MIXR
DVDFL
DVDFR
DVDSL
DVDSR
DVDCNT
SUBW
MUTE DVD
DVD D+5V
DVD A+5V
D+1.2V
M+9V
DVD CLK
DVD CMD
DVD STAT
Q2028
B1GBCFJN0033
Muting Switch
R2895 10K
C2863 16V220
C2053 0.01
CN2002
GND
M+9V
DETECT
RCH
DO/ST
LCH
SD
DI
CLK
PORT SEL
TO TUNER PACK
T+9V
TU FMDET
TUN R
TU ST
TUN L
TU SD
TU SDA
TU SCL
C2200 0.039
R2200 1K
C2100 0.039
R2100 1K
C2090 0.01
R2101 47K
C2101 3300P
C2179 10V680
R2201 47K
C2201 3300P
IC2007
C0GAG0000007
Motor Drive(Tray)
VREF
OUT2
RMF
OUT1
VM
VCC
F-IN
GND
R-IN
CN2010
TRV-
TRV+
DGND
PHT DRV
DISC SENS
PULSE SENS
POSTIN SENS
TO G SENSOR CIRCUIT (CN9102)on SCHEMATIC DIAGRAM-9
L2003 J0JBC0000015
L2004 J0JBC0000015
L2005 J0JBC0000015
L2006 J0JBC0000015
D2005 B0ECKM000016
D2004 B0ECKM000016
R2099 4.7K
R2098 330
R2700 10K
Q2002
B1GBCFJJ0051
Motor Drive
R2095 120
R2096 150
TURN REW
TURN FWD
C+9V
PWM
DISC SENS
PULSE
POSITION
IC2008
C0GAG0000007
Motor Drive(Loading)
C2023 0.1
C2024 16V47
CN2011
LONG MOTOR-
LONG MOTOR+
CAM SENS
OPEN SW
TO E LOADING MOTOR CIRCUIT (CN9003)on SCHEMATIC DIAGRAM-9
L2007 J0JBC0000015
L2008 J0JBC0000015
L2009 J0JBC0000015
D2007 B0ECKM000016
D2006 B0ECKM000016
R2899 4.7K
R2800 330
R2802 10K
Q2001
B1GBCFJJ0051
Motor Drive
LOAD REV
LOAD FWD
LOAD
R2097 330
R2706 330
OPEN SW
LINE R
C2206 50V4.7
R2207 100K
R2206 3.3K
C2207 50V3.3
C2107 50V3.3
R2107 100K
R2106 3.3K
LOUT2
LOUT1
R2208 2.7K
R2108 2.7K
C2099 50V4.7
R2873 27K
R2874 56K
Q2100
B1GFGCAA0001
Muting Switch
Q2026
B1GDCFGA0018
Muting Control
LINE L
C2106 50V4.7
R2872 1K
C2226 0.01
-7.5V
MUTE L
IC2019
C3EBEG000072
EEPROM IC
(Not Supplied)
C2022 0.022
C2021 330P
R2093 22K
C2020 330P
R2094 22K
R2092 4.7K
C2019 330P
VREF+
EECS
EECLK
EEDA
LOUT1
LOUT2
TV L
TV R
VCR L
VCR R
AUX L
AUX R
TUN L
TUN R
DVD MIXL
DVD MIXR
EXT L
EXT R
DVDCNT
DVDSL
DVDSR
SUBW
C2120 1
C2218 1
R2217 100K
R2117 100K
R2211 33K
R2111 33K
C2176 470P
C2177 470P
IC2011
C1BB00000845
ASP IC
INA1
INA2
INB1
INB2
INC1
INC2
IND1
IND2
INE1
INE2
AGND
EXM1
EXM2
INFLA
INFRA
INCA
INLSA
INRSA
INSUBA
FW4
OUTFL
FOUT3
FW3
OUTFR
MIX IN
AGCR
AGCC
GAOUT
FW2
FOUT2
FW1
FOUT1
OUTC
OUTCN
OUTLS
OUTLSN
OUTRS
OUTRSW
OUTSUBN
C2605 0.33
LOUT2
LOUT1
TMFR
TMFL
BNFRA
BNFRB
BNFLA
BNFLB
GOUTFL
VINFL
GOUTFR
VINFR
AGND
THGND
CL
DA
VCC
VEE
FOUT4
AOUT1
AOUT2
INFLB
INFRB
INCB
INLSB
INRSB
INSUBB
GOUTC
VDDC
GOUTLS
VRLS
GOUTRS
VRRS
GOUTSUB
VINSUB
C
E
ASP CK
ASP DA
+7.5V
-7.5V
R2164 18K
R2264 18K
L2805 ERJ3GEY0R00V
C2833 16V47
C2831 16V47
C2816 220P
C2175 0.12
C2270 0.12
C2818 220P
C2820 0.01
C2822 0.01
R2265 6.8K
R2165 6.8K
R2278 18K
R2178 18K
C2265 2700P
C2164 2700P
C2219 0.12
C2220 0.12
C2165 0.12
C2166 0.12
C2167 50V4.7
C2266 50V4.7
R2262 22K
R2161 22K
C2604 2200P
R2607 27K
C2264 470P
R2260 10K
C2160 470P
R2160 10K
C2507 100P
R2507 10K
R2116 100K
R2216 100K
C2127 50V4.7
C2227 50V4.7
C2501 4.7
C2405 4.7
C2401 4.7
R2650 22K
C2602 50V10
R2604 33K
R2603 12K
R2404 4.7K
DVDFL
R2112 10K
C2121 150P
R2113 10K
C2123 50V10
R2114 10K
R2115 27K
C2124 100P
C2125 33P
C2122 390P
R2172 0
R2271 0
IC2010
C0ABBB000118
Buffer Amp
C2225 33P
DVDFR
R2212 10K
R2213 10K
C2224 100P
R2215 27K
C2126 0.01
C2221 150P
C2222 390P
C2223 50V10
R2214 10K
C2169 470P
C2301 470P
C2402 470P
R2170 3.9K
R2301 6.8K
R2401 6.8K
R2302 22K
R2402 22K
R2979 12K
+7.5V
SS L
SS R
SS C
C
D

SA-HT930GC/GS MAIN CIRCUIT

SCHEMATIC DIAGRAM-5

B MAIN CIRCUIT

— :+B SIGNAL LINE   ---- :-B SIGNAL LINE   ⇨ :MAIN SIGNAL LINE

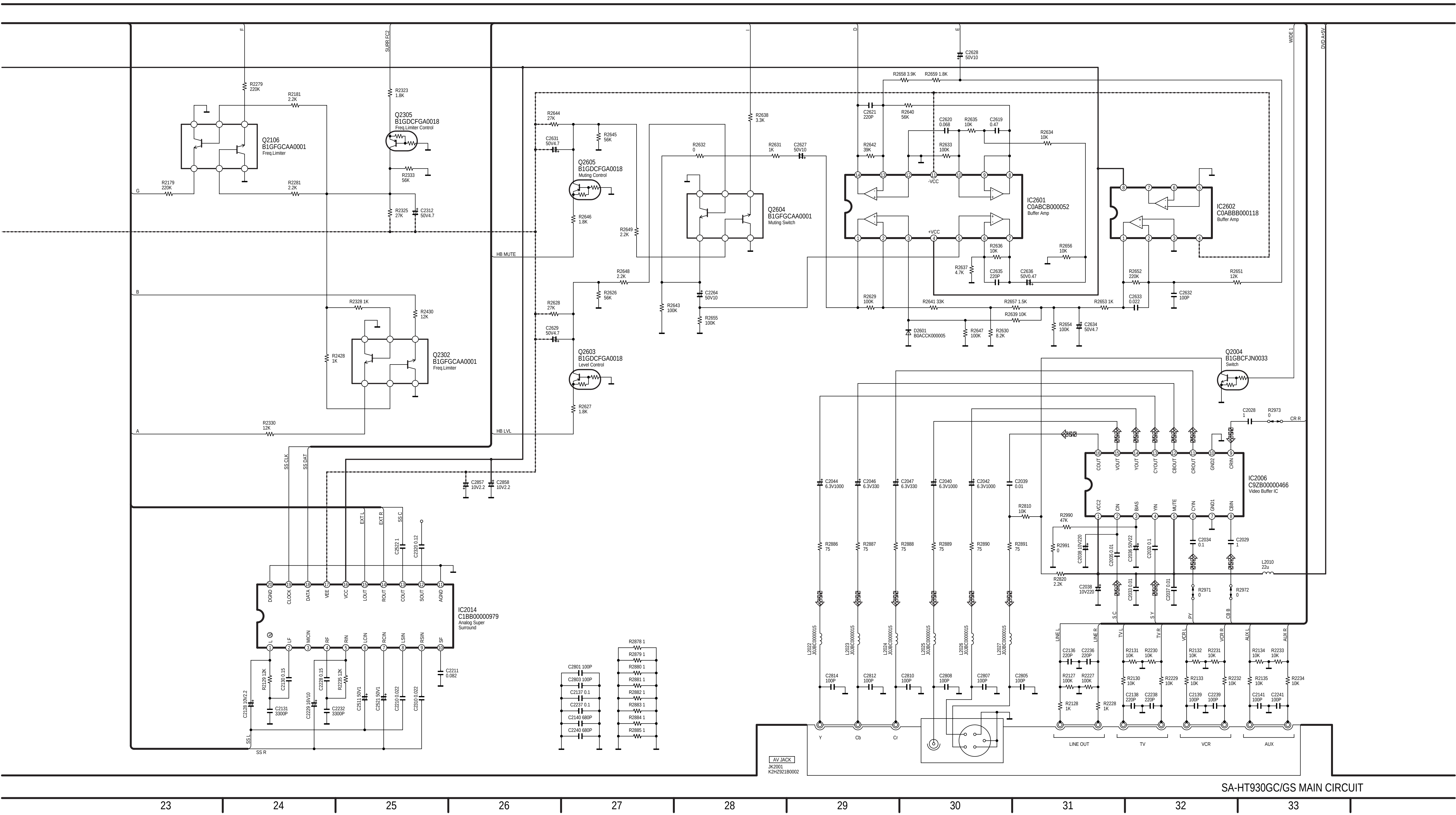

F
G
FRONTR
FRONTL
A
B
RSURR
CENTER
SUBWOOFER
LSURR
MUTE C
MUTE SW
MUTE S
IC2015
C0ABBB000118
Buffer Amp
IC2013
C0AABB000125
Headphone Amp
Q2500
B1GDCFGA0018
Muting Control
Q2601
B1GFGCAA0001
Muting Switch
Q2600
B1GDCFGA0018
Muting Control
Q2103
B1GDCFGA0018
Muting Control
Q2104
B1GFGCAA0001
Muting Switch
Q2200
B1GFGCAA0001
Muting Switch
Q2105
B1GDCFGA0018
Muting Control
Q2102
B1GFGCAA0001
Muting Switch
Q2201
B1GDCFGA0018
Muting Control
D2603
B0ACCK000005
D2602
B0ACCK000005
C2506 0.01
C2503 0.033
R2504 12K
C2505 50V1
R2505 1K
C2504 0.068
R2506 33K
R2263 1K
R2163 1K
C2263 50V3.3
C2163 50V3.3
R2894 220K
C2827 50V10
R2307 100
C2303 50V3.3
C2613 0.01
R2615 100K
R2614 1K
C2612 50V4.7
R2616 15K
C2615 5600P
R2617 33K
C2611 50V4.7
R2618 1K
R2407 100
C2616 16V10
C2404 50V3.3
R2508 1.8K
R2661 1.5K
R2660 1.5K
R2619 2.2K
R2620 1.8K
R2308 1.8K
R2509 56K
R2621 56K
R2309 56K
R2510 27K
C2508 50V4.7
R2511 2.2K
R2623 100K
R2622 27K
C2617 50V4.7
R2310 27K
C2170 50V4.7
R2162 2.7K
R2624 100K
C2161 0.1
C2162 0.15
C2149 1
R2144 3.3K
R2261 2.7K
C2262 0.15
C2261 0.1
C2249 1
R2244 3.3K
R2892 1K
R2893 22K
C2606 0.22
C2623 0.056
C2607 0.22
R2608 120K
R2610 2.2K
C2618 0.12
R2609 56K
C2608 0.1
R2625 5.6K
R2611 68K
C2610 50V10
R2613 3.3K
R2501 33K
C2502 50V1
R2503 3.3K
C2302 1
R2305 1K
R2303 30K
C2403 1
R2405 1K
R2403 30K
R2605 1.2K
R2612 10K
C2603 50V10
C2609 5600P
R2304 4.7K
R2502 4.7K
R2606 10K
R2406 100K
R2311 2.2K
R2312 2.2K
R2306 100K
R2255 100K
R2254 2.2K
R2154 2.2K
R2155 100K
R2167 12K
R2168 22K
C2168 50V3.3
R2166 1.2K
MUTE F
C2250 50V1
R2245 4.7K
R2246 33K
C2251 100P
C2252 47P
C2154 0.01
C2253 16V100
R2247 22
R2249 22
R2248 22
R2250 22
R2251 4.7K
C2255 1000P
R2253 10
HP R
R2152 2.7K
R2268 27K
R2267 56K
C2267 50V4.7
C2254 0.01
C2151 100P
C2152 47P
C2153 16V100
R2148 22
R2150 22
R2147 22
R2149 22
C2155 1000P
R2151 4.7K
R2252 2.7K
R2153 10
R2266 1.8K
C2150 50V1
R2145 4.7K
R2146 33K
MUTE HP
MP L
12
13
14
15
16
17
18
19
20
21
22

SA-HT930GC/GS MAIN CIRCUIT

SCHEMATIC DIAGRAM-6

B MAIN CIRCUIT

—— :+B SIGNAL LINE ---- :-B SIGNAL LINE ⇨ :DVD(VIDEO) SIGNAL LINE

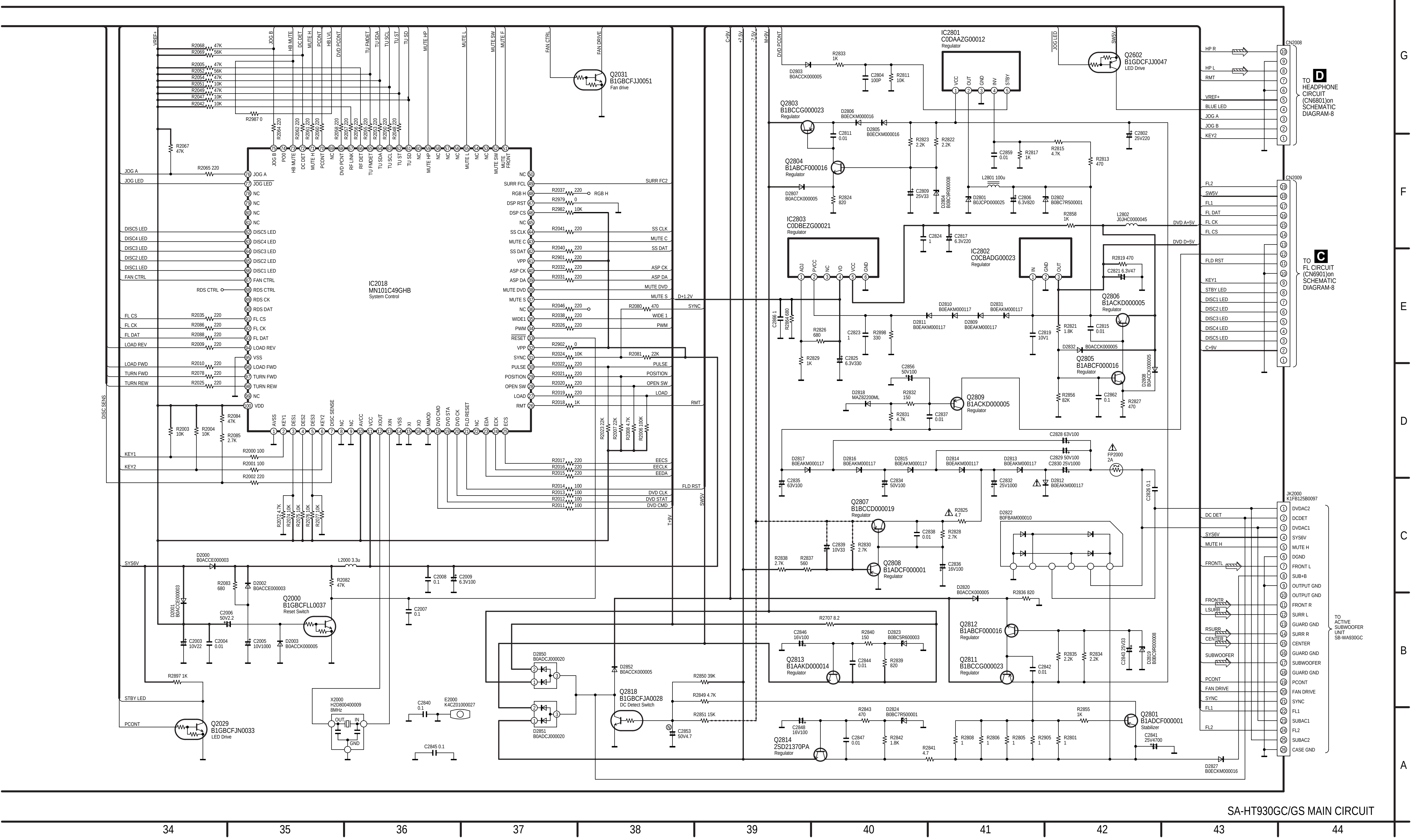

F
SURR FC2
I
D
E
WIDE 1
DVD A+5V
C2628 50V10
R2279 220K
R2181 2.2K
R2323 1.8K
Q2305 B1GDCFGA0018 Freq.Limiter Control
Q2106 B1GFGCAA0001 Freq.Limiter
R2333 56K
R2179 220K
G
R2281 2.2K
R2325 27K
C2312 50V4.7
R2644 27K
C2631 50V4.7
R2645 56K
Q2605 B1GDCFGA0018 Muting Control
R2646 1.8K
R2649 2.2K
HB MUTE
R2632 0
R2638 3.3K
R2631 1K
C2627 50V10
Q2604 B1GFGCAA0001 Muting Switch
R2658 3.9K
R2659 1.8K
C2621 220P
R2640 56K
C2620 0.068
R2635 10K
C2619 0.47
R2634 10K
R2642 39K
R2633 100K
-VCC
+VCC
IC2601 C0ABCB000052 Buffer Amp
IC2602 C0ABBB000118 Buffer Amp
R2636 10K
R2637 4.7K
C2635 220P
C2636 50V0.47
R2656 10K
R2652 220K
R2651 12K
C2633 0.022
C2632 100P
B
R2328 1K
R2430 12K
R2648 2.2K
R2626 56K
R2628 27K
C2629 50V4.7
C2264 50V10
R2643 100K
R2655 100K
R2629 100K
R2641 33K
R2657 1.5K
R2639 10K
R2653 1K
D2601 B0ACCK000005
R2647 100K
R2630 8.2K
R2654 100K
C2634 50V4.7
Q2302 B1GFGCAA0001 Freq.Limiter
R2428 1K
Q2603 B1GDCFGA0018 Level Control
R2627 1.8K
Q2004 B1GBCFJN0033 Switch
A
R2330 12K
HB LVL
C2028 1
R2973 0
CR R
SS CLK
SS DAT
C2857 10V2.2
C2858 10V2.2
EXT L
EXT R
SS C
C2522 1
C2320 0.12
DGND CLOCK DATA VEE VCC LOUT ROUT COUT SOUT AGND
IC2014 C1BB00000979 Analog Super Surround
L LF MICIN RF RIN LCIN RCIN LSIN RSIN SF
C2211 0.082
R2129 12K
C2130 0.15
C2128 10V2.2
C2131 3300P
C2228 0.15
R2235 12K
C2229 16V10
C2232 3300P
C2511 50V1
C2521 50V1
C2210 0.022
C2310 0.022
SS L
SS R
C2801 100P
C2803 100P
C2137 0.1
C2237 0.1
C2140 680P
C2240 680P
R2878 1
R2879 1
R2880 1
R2881 1
R2882 1
R2883 1
R2884 1
R2885 1
COUT VOUT YOUT CYOUT CBOUT CROUT GND2 CRIN
IC2006 C9ZB00000466 Video Buffer IC
VCC2 CIN BIAS YIN MUTE CYIN GND1 CBIN
C2044 6.3V1000
C2046 6.3V330
C2047 6.3V330
C2040 6.3V1000
C2042 6.3V1000
C2039 0.01
R2810 10K
R2990 47K
R2991 0
C2038 10V220
C2035 0.01
C2036 50V22
C2032 0.1
C2034 0.1
C2029 1
L2010 22u
R2820 2.2K
C2038 10V220
C2033 0.01
C2037 0.01
R2971 0
R2972 0
R2886 75
R2887 75
R2888 75
R2889 75
R2890 75
R2891 75
S.C
S.Y
PY
CB B
L2022 J0JBC0000015
L2023 J0JBC0000015
L2024 J0JBC0000015
L2025 J0JBC0000015
L2026 J0JBC0000015
L2027 J0JBC0000015
C2814 100P
C2812 100P
C2810 100P
C2808 100P
C2807 100P
C2805 100P
LINE L
LINE R
TV L
TV R
VCR L
VCR R
AUX L
AUX R
C2136 220P
C2236 220P
R2127 100K
R2227 100K
R2128 1K
R2228 1K
R2131 10K
R2230 10K
R2130 10K
R2229 10K
C2138 220P
C2238 220P
R2132 10K
R2231 10K
R2133 10K
R2232 10K
C2139 100P
C2239 100P
R2134 10K
R2233 10K
R2135 10K
R2234 10K
C2141 100P
C2241 100P
Y
Cb
Cr
AV JACK
JK2001 K2HZ921B0002
LINE OUT
TV
VCR
AUX
23
24
25
26
27
28
29
30
31
32
33

SA-HT930GC/GS MAIN CIRCUIT

SCHEMATIC DIAGRAM-7

B MAIN CIRCUIT

:+B SIGNAL LINE :-B SIGNAL LINE :MAIN SIGNAL LINE



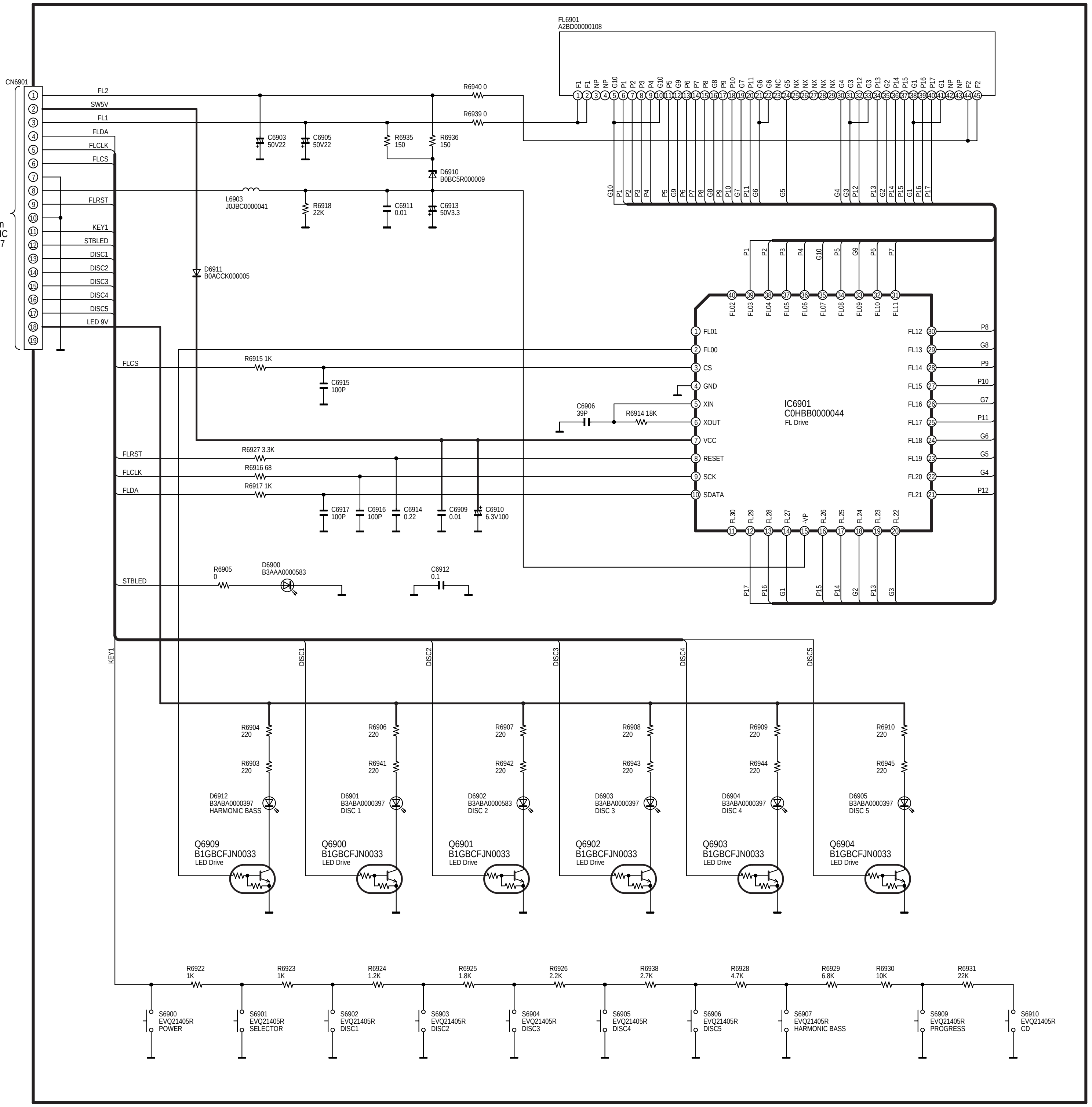
IC2018
MN101C49GHB
System Control
IC2801
C0DAAZG00012
Regulator
IC2802
C0CBADG00023
Regulator
IC2803
C0DBEZG00021
Regulator
Q2031
B1GBCFJJ0051
Fan drive
Q2602
B1GDCFJJ0047
LED Drive
Q2029
B1GBCFJN0033
LED Drive
Q2000
B1GBCFLL0037
Reset Switch
Q2818
B1GBCFJA0028
DC Detect Switch
Q2801
B1ADCF000001
Stabilizer
Q2803
B1BCCG000023
Regulator
Q2804
B1ABCF000016
Regulator
Q2805
B1ABCF000016
Regulator
Q2806
B1ACKD000005
Regulator
Q2807
B1BCCD000019
Regulator
Q2808
B1ADCF000001
Regulator
Q2809
B1ACKD000005
Regulator
Q2811
B1BCCG000023
Regulator
Q2812
B1ABCF000016
Regulator
Q2813
B1AAKD000014
Regulator
Q2814
2SD21370PA
Regulator
X2000
H2D800400009
8MHz
E2000
K4CZ01000027
FP2000
2A
L2000 3.3u
L2801 100u
L2802
J0JHC0000045
CN2008
TO D HEADPHONE CIRCUIT (CN6801)on SCHEMATIC DIAGRAM-8
HP R
HP L
RMT
VREF+
BLUE LED
JOG A
JOG B
KEY2
CN2009
TO C FL CIRCUIT (CN6901)on SCHEMATIC DIAGRAM-8
FL2
SW5V
FL1
FL DAT
FL CK
FL CS
FLD RST
KEY1
STBY LED
DISC1 LED
DISC2 LED
DISC3 LED
DISC4 LED
DISC5 LED
C+9V
DVD A+5V
DVD D+5V
JK2000
K1FB125B0097
TO ACTIVE SUBWOOFER UNIT SB-WA930GC
DVDAC2
DCDET
DVDAC1
SYS6V
MUTE H
DGND
FRONT L
SUB+B
OUTPUT GND
OUTPUT GND
FRONT R
SURR L
GUARD GND
SURR R
CENTER
GUARD GND
SUBWOOFER
GUARD GND
PCONT
FAN DRIVE
SYNC
FL1
SUBAC1
FL2
SUBAC2
CASE GND
DC DET
SYS6V
MUTE H
FRONTL
FRONTR
LSURR
RSURR
CENTER
SUBWOOFER
PCONT
FAN DRIVE
SYNC
FL1
FL2
JOG A
JOG LED
DISC5 LED
DISC4 LED
DISC3 LED
DISC2 LED
DISC1 LED
FAN CTRL
RDS CTRL
FL CS
FL CK
FL DAT
LOAD REV
LOAD FWD
TURN FWD
TURN REW
KEY1
KEY2
SYS6V
STBY LED
PCONT
DISC SENS
SURR FC2
SS CLK
MUTE C
SS DAT
ASP CK
ASP DA
MUTE DVD
MUTE S
SYNC
WIDE 1
PWM
PULSE
POSITION
OPEN SW
LOAD
RMT
EECS
EECLK
EEDA
FLD RST
DVD CLK
DVD STAT
DVD CMD
VREF+
JOG B
HB MUTE
DC DET
MUTE H
PCONT
HB LVL
DVD PCONT
TU FMDET
TU SDA
TU SCL
TU ST
TU SD
MUTE HP
MUTE L
MUTE SW
MUTE F
FAN CTRL
FAN DRIVE
C+9V
+7.5V
-7.5V
M+9V
DVD PCONT
JOG LED
SW5V
T+9V
D+1.2V
G
F
E
D
C
B
A
34
35
36
37
38
39
40
41
42
43
44

SA-HT930GC/GS MAIN CIRCUIT

SCHEMATIC DIAGRAM-8

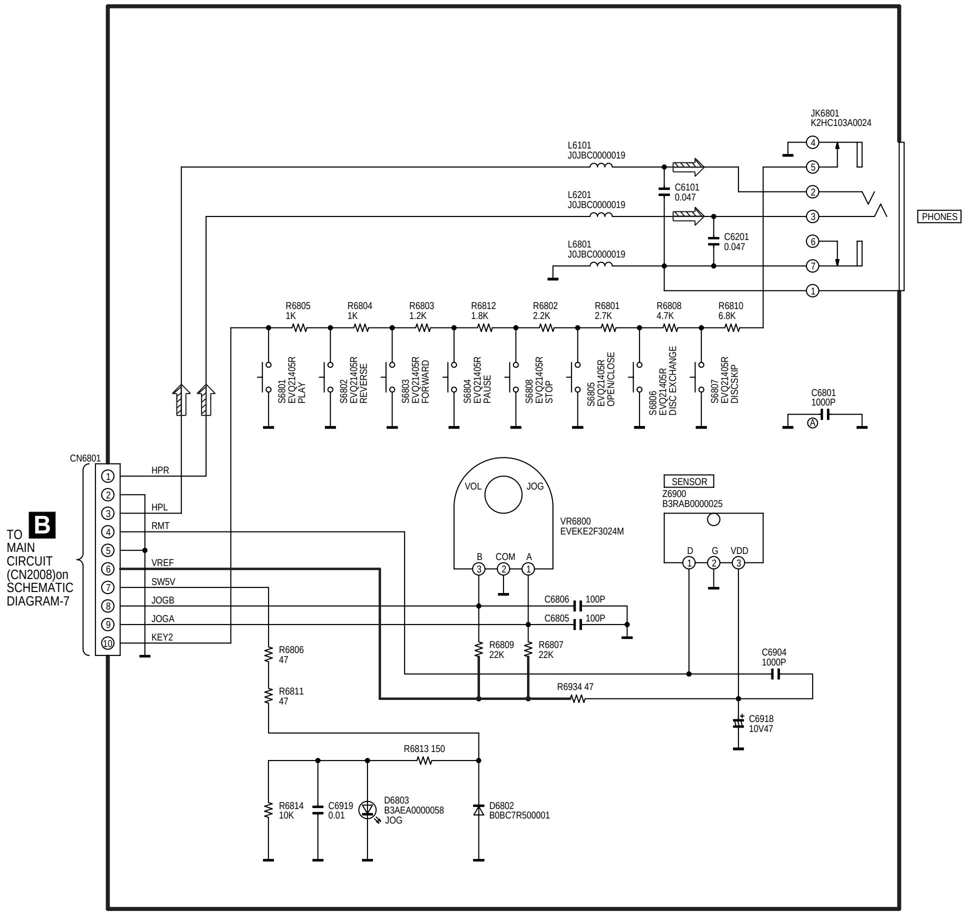
C FL CIRCUIT

—— :+B SIGNAL LINE ⇒ :MAIN SIGNAL LINE



CN6901
FL2
SW5V
FL1
FLDA
FLCLK
FLCS
FLRST
KEY1
STBLED
DISC1
DISC2
DISC3
DISC4
DISC5
LED 9V
TO B MAIN CIRCUIT (CN2009)on SCHEMATIC DIAGRAM-7
FL6901
A2BD00000108
R6940 0
R6939 0
C6903 50V22
C6905 50V22
R6935 150
R6936 150
D6910 B0BC5R000009
L6903 J0JBC0000041
R6918 22K
C6911 0.01
C6913 50V3.3
D6911 B0ACCK000005
IC6901
C0HBB0000044
FL Drive
R6915 1K
C6915 100P
C6906 39P
R6914 18K
R6927 3.3K
R6916 68
R6917 1K
C6917 100P
C6916 100P
C6914 0.22
C6909 0.01
C6910 6.3V100
R6905 0
D6900 B3AAA0000583
C6912 0.1
XIN
XOUT
VCC
RESET
SCK
SDATA
CS
GND
FL00
FL01
KEY1
DISC1
DISC2
DISC3
DISC4
DISC5
R6904 220
R6903 220
R6906 220
R6941 220
R6907 220
R6942 220
R6908 220
R6943 220
R6909 220
R6944 220
R6910 220
R6945 220
D6912 B3ABA0000397 HARMONIC BASS
D6901 B3ABA0000397 DISC 1
D6902 B3ABA0000583 DISC 2
D6903 B3ABA0000397 DISC 3
D6904 B3ABA0000397 DISC 4
D6905 B3ABA0000397 DISC 5
Q6909 B1GBCFJN0033 LED Drive
Q6900 B1GBCFJN0033 LED Drive
Q6901 B1GBCFJN0033 LED Drive
Q6902 B1GBCFJN0033 LED Drive
Q6903 B1GBCFJN0033 LED Drive
Q6904 B1GBCFJN0033 LED Drive
R6922 1K
R6923 1K
R6924 1.2K
R6925 1.8K
R6926 2.2K
R6938 2.7K
R6928 4.7K
R6929 6.8K
R6930 10K
R6931 22K
S6900 EVQ21405R POWER
S6901 EVQ21405R SELECTOR
S6902 EVQ21405R DISC1
S6903 EVQ21405R DISC2
S6904 EVQ21405R DISC3
S6905 EVQ21405R DISC4
S6906 EVQ21405R DISC5
S6907 EVQ21405R HARMONIC BASS
S6909 EVQ21405R PROGRESS
S6910 EVQ21405R CD

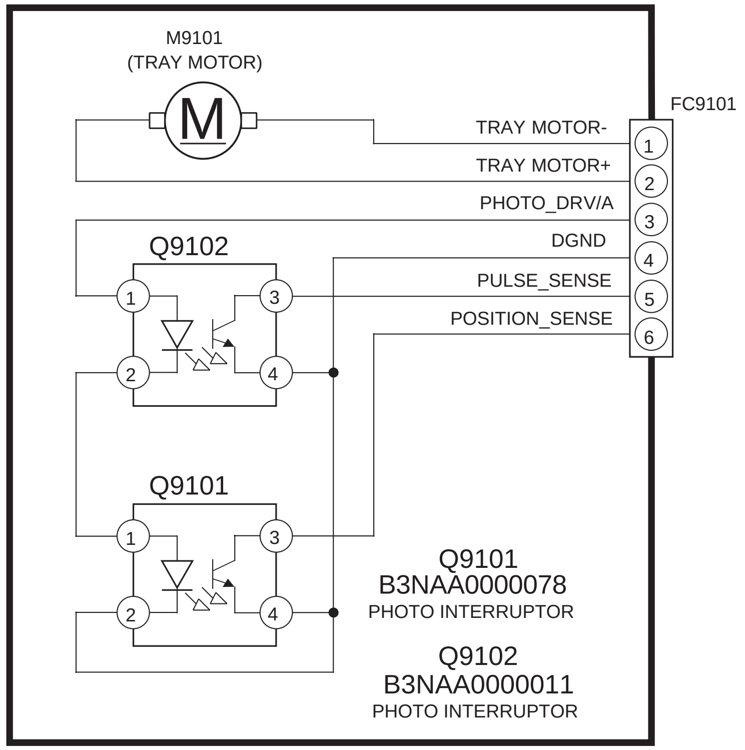
D HEADPHONE CIRCUIT



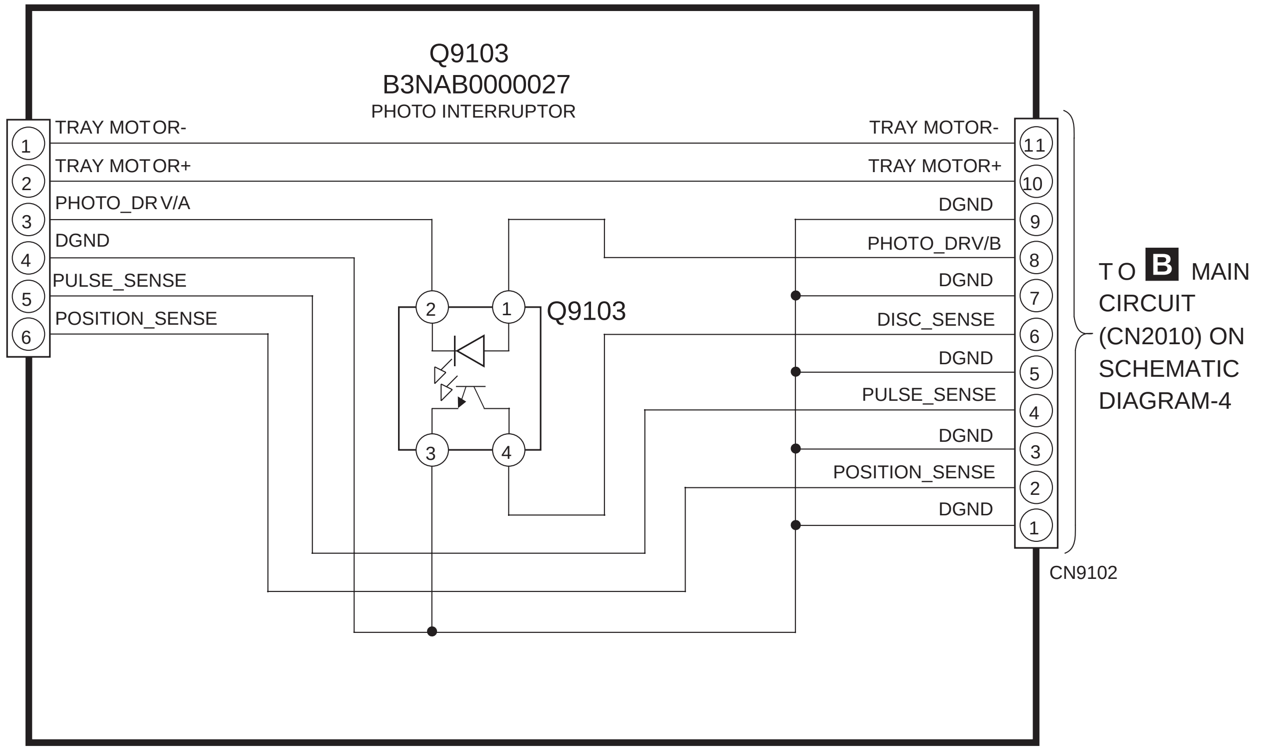
JK6801
K2HC103A0024
PHONES
L6101 J0JBC0000019
L6201 J0JBC0000019
L6801 J0JBC0000019
C6101 0.047
C6201 0.047
R6805 1K
R6804 1K
R6803 1.2K
R6812 1.8K
R6802 2.2K
R6801 2.7K
R6808 4.7K
R6810 6.8K
S6801 EVQ21405R PLAY
S6802 EVQ21405R REVERSE
S6803 EVQ21405R FORWARD
S6804 EVQ21405R PAUSE
S6808 EVQ21405R STOP
S6805 EVQ21405R OPEN/CLOSE
S6806 EVQ21405R DISC EXCHANGE
S6807 EVQ21405R DISC/SKIP
C6801 1000P
CN6801
HPR
HPL
RMT
VREF
SW5V
JOGB
JOGA
KEY2
TO B MAIN CIRCUIT (CN2008)on SCHEMATIC DIAGRAM-7
VOL
JOG
VR6800
EVEKE2F3024M
B COM A
SENSOR
Z6900
B3RAB0000025
D G VDD
C6806 100P
C6805 100P
R6809 22K
R6807 22K
R6806 47
R6811 47
R6934 47
C6904 1000P
C6918 10V47
R6813 150
R6814 10K
C6919 0.01
D6803 B3AEA0000058 JOG
D6802 B0BC7R500001

SCHEMATIC DIAGRAM-9

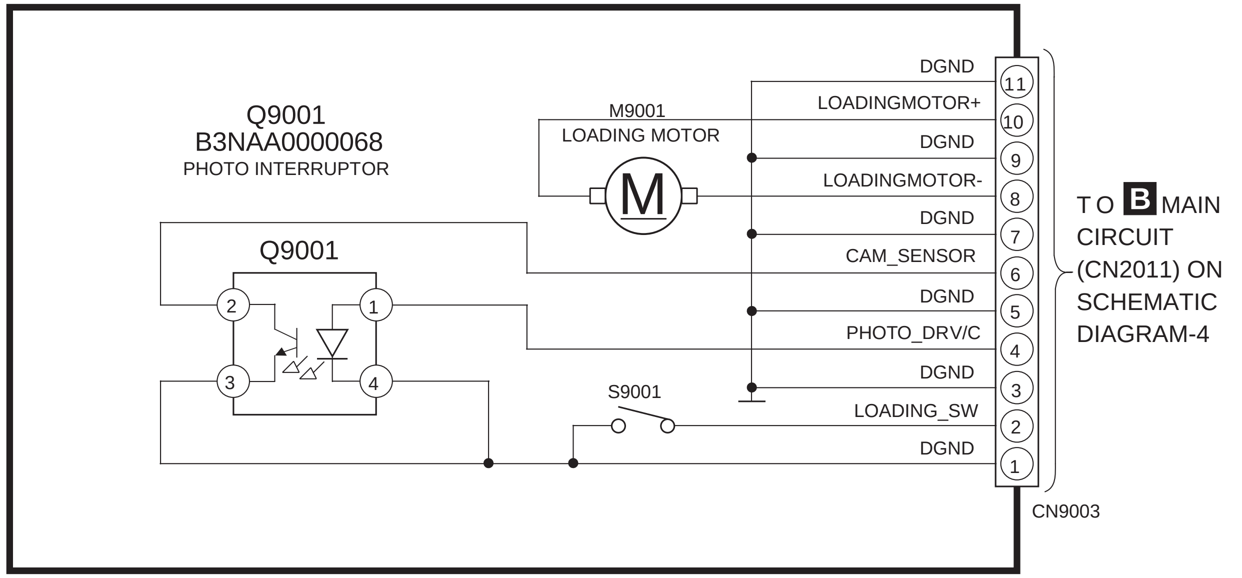
F TRAY MOTOR CIRCUIT

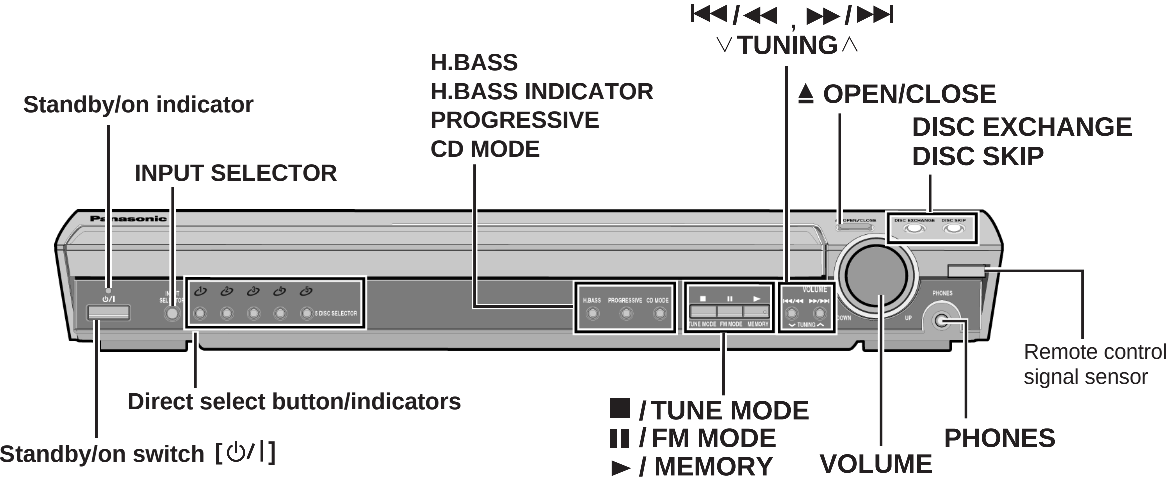

M9101
(TRAY MOTOR)
M
TRAY MOTOR-
TRAY MOTOR+
PHOTO_DRV/A
DGND
PULSE_SENSE
POSITION_SENSE
FC9101
1
2
3
4
5
6
Q9102
Q9101
Q9101
B3NAA0000078
PHOTO INTERRUPTOR
Q9102
B3NAA0000011
PHOTO INTERRUPTOR

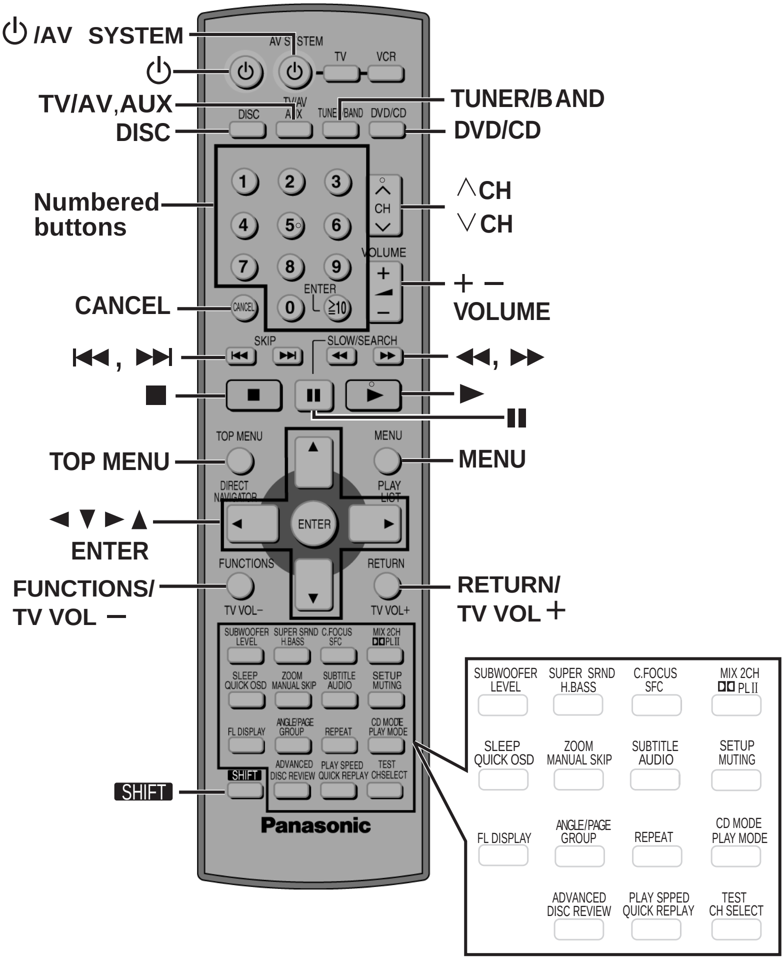
G SENSOR CIRCUIT

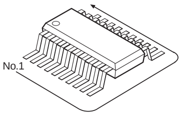

Q9103
B3NAB0000027
PHOTO INTERRUPTOR
TRAY MOTOR-
TRAY MOTOR+
PHOTO_DRV/A
DGND
PULSE_SENSE
POSITION_SENSE
Q9103
TRAY MOTOR-
TRAY MOTOR+
DGND
PHOTO_DRV/B
DGND
DISC_SENSE
DGND
PULSE_SENSE
DGND
POSITION_SENSE
DGND
CN9102
TO B MAIN CIRCUIT (CN2010) ON SCHEMATIC DIAGRAM-4

E LOADING MOTOR CIRCUIT

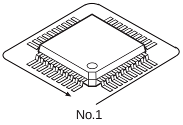

Q9001
B3NAA0000068
PHOTO INTERRUPTOR
Q9001
M9001
LOADING MOTOR
M
S9001
DGND
LOADINGMOTOR+
DGND
LOADINGMOTOR-
DGND
CAM_SENSOR
DGND
PHOTO_DRV/C
DGND
LOADING_SW
DGND
CN9003
TO B MAIN CIRCUIT (CN2011) ON SCHEMATIC DIAGRAM-4


Standby/on indicator
INPUT SELECTOR
H.BASS
H.BASS INDICATOR
PROGRESSIVE
CD MODE
⏮/⏪ , ⏩/⏭
∨TUNING∧
▲ OPEN/CLOSE
DISC EXCHANGE
DISC SKIP
Remote control signal sensor
Direct select button/indicators
Standby/on switch [⏻/I]
■ / TUNE MODE
❚❚ / FM MODE
► / MEMORY
VOLUME
PHONES
Panasonic
INPUT SELECTOR
5 DISC SELECTOR
H.BASS PROGRESSIVE CD MODE
TUNE MODE FM MODE MEMORY
VOLUME
TUNING
DOWN
UP
OPEN/CLOSE
DISC EXCHANGE DISC SKIP


⏻/AV SYSTEM
⏻
TV/AV,AUX
DISC
Numbered buttons
CANCEL
⏮ , ⏭
■
TOP MENU
◄ ▼ ► ▲
ENTER
FUNCTIONS/
TV VOL −
SHIFT
TUNER/BAND
DVD/CD
∧CH
∨CH
+ −
VOLUME
⏪, ⏩
►
❚❚
MENU
RETURN/
TV VOL +
AV SYSTEM
TV
VCR
TV/AV AUX
TUNER/BAND
ENTER
SKIP
SLOW/SEARCH
DIRECT NAVIGATOR
PLAY LIST
TV VOL−
TV VOL+
Panasonic
SUBWOOFER LEVEL
SUPER SRND H.BASS
C.FOCUS SFC
MIX 2CH ◘◘PL II
SLEEP QUICK OSD
ZOOM MANUAL SKIP
SUBTITLE AUDIO
SETUP MUTING
FL DISPLAY
ANGLE/PAGE GROUP
REPEAT
CD MODE PLAY MODE
ADVANCED DISC REVIEW
PLAY SPPED QUICK REPLAY
TEST CH SELECT

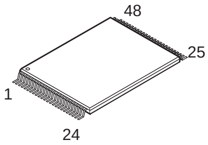


C0ABBB000118 (8p)
C0ABCB000052 (14p)
C0CBCBD00018 (8p)
C0FBBK000050 (28p)
C1BB00000979 (20p)
C3ABPG000133 (54p)
C9ZB00000466 (16p)
B1ABCE000016 (8p)
C3EBGC000044 (8p)
C3EBEG000072 (8p)

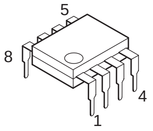


C0HBB0000044 (40p)
C1BB00000845 (80p)
MN101C49GHB (100p)
MN2DS0003APH (256p)

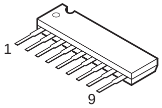
RFKWMH82H160



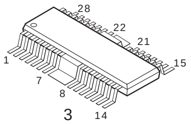
C0AABB000125



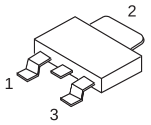
C0GAG0000007



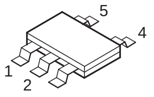
C0GBG0000048


28
22
21
15
1
7
8
3
14

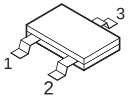
C0CBADG00023



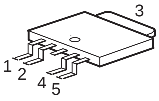
C0EBA0000031
C0JBAA000346



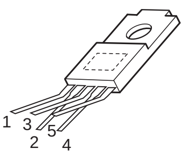
C0EBE0000384



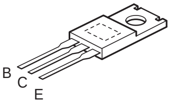
C0DBEZG00021



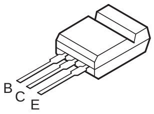
C0DAAZG00012



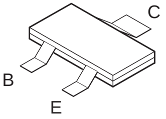
B1BCCG000023



2SD21370PA

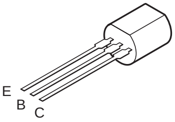


2SB09700RL
2SB1219AHL
2SD1819A0L
UNR521400L

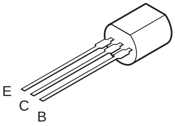


B1GBCFLL0037
B1ADCF000001
B1GBCFJA0028
B1GBCFJN0033
B1GDCFGA0018
B1GBCFJJ0051
UNR511V00L
UNR521100L

B1AAKD000014



B1ACKD000005



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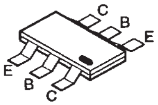

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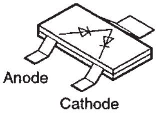
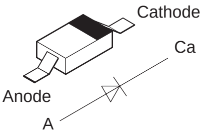
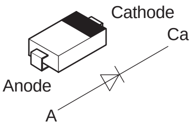

Anode
Cathode

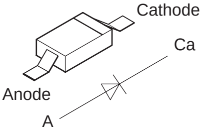
MAZ82200ML


Cathode
Ca
Anode
A

B0ACCE000003
B0ECKM000016


Cathode
Ca
Anode
A

MA2J11100L


Cathode
Ca
Anode
A

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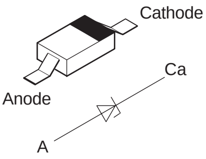
B0BC7R500001
B0BC5R000009
B0JCPD000025


Cathode
Ca
Anode
A

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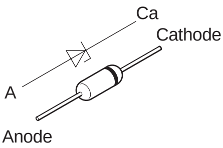
Ca
Cathode
A
Anode

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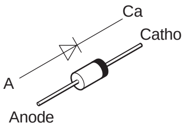
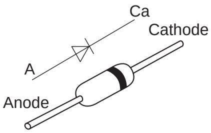

Ca
Cathode
A
Anode

MA2J72800L


Ca
Cathode
A
Anode

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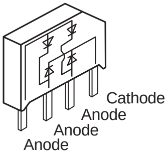
Cathode
Anode
Anode
Anode

B3AAA0000583
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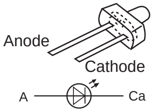
B3AEA0000058


Anode
Cathode
A
Ca

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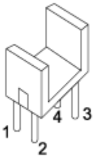

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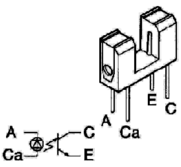
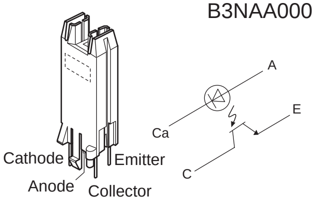
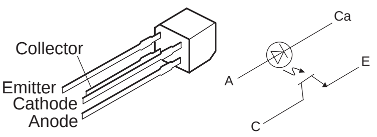

E
C
A
Ca
A
C
Ca
E

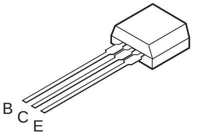
B3NAA0000078


A
E
Ca
C
Cathode
Emitter
Anode
Collector

B3NAB0000027


Collector
Emitter
Cathode
Anode
Ca
E
A
C

B1BCCD000019



Discs that can be played

Disc	Logo	Indication in these operating instructions	Remarks
DVD-RAM	DVD RAM RAM4.7	RAM	Recorded with devices using Version 1.1 of the Video Recording Format (a unified video recording standard), such as DVD video recorders, DVD video cameras, personal computers, etc.
		JPEG	Recorded using the DCF (Design rule for Camera File system) standard Version 1.0. ●To play JPEG files, select "Play as Data Disc" in Other Menu.
DVD-Audio	DVD AUDIO	DVD-A	—
		DVD-V	Some DVD-Audio discs contain DVD-Video content. To play DVD-Video content, select "Play as DVD-Video" in Other Menu.
DVD-Video	DVD VIDEO DVD VIDEO	DVD-V	—
DVD-R (DVD-Video)/ DVD-RW (DVD-Video)	DVD R R4.7 DVD RW		Discs recorded and finalized※ on DVD video recorders or DVD video cameras.
+R (Video) / +RW (Video)	—		Discs recorded and finalized※ on DVD video recorders or DVD video cameras.
Video CD	COMPACT disc DIGITAL VIDEO	VCD	—
SVCD	COMPACT disc SUPER VIDEO		Conforming to IEC62107
CD	COMPACT disc DIGITAL AUDIO COMPACT disc DIGITAL AUDIO TEXT	CD	This unit is compatible with HDCD, but does not support the Peak Extend function (a function which expands the dynamic range of high level signals). HDCD-encoded CD's sound better because they are encoded with 20 bits, as compared with 16 bits for all other CD's.
CD-R CD-RW	—	WMA MP3 JPEG CD VCD	●This unit can play CD-R/RW (audio recording disc) recorded with the formats on the left. Close the sessions or finalize※ the disc after recording. ●**HighMAT discs** WMA, MP3 or JPEG files only. To play without using the HighMAT function, select "Play as Data Disc" in Other Menu. ● WMA This unit does not support Multiple Bit Rate (MBR: a file that contains the same content encoded at several different bit rates).

※A process that allows play on compatible equipment.

●It may not be possible to play the above discs in all cases due to the type of disc or condition of the recording.

Discs that cannot be played

DVD-ROM, CD-ROM, CDV, CD-G, SACD, DivX Video Discs and Photo CD, DVD-RAM that cannot be removed from their cartridge, 2.6-GB and 5.2-GB DVD-RAM, and "Chaoji VCD" available on the market including CVD, DVCD and SVCD that do not conform to IEC62107.

Audio format of DVD's

This unit automatically recognizes and decodes discs with these symbols.

DOLBY DIGITAL

DIGITAL dts SURROUND

To prevent damage

Do not:

–load more than one disc per tray.

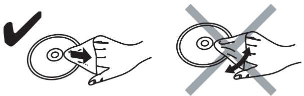
–touch the drawer or the carousel while they are in motion.

–rotate the carousel by hand.

–close the drawer by hand.

To clean discs

Wipe with a damp cloth and then wipe dry.



Video systems

- This unit can play PAL and NTSC, but your television must match the system used on the disc.
- PAL discs cannot be correctly viewed on an NTSC television.
- This unit can convert NTSC signals to PAL 60 for viewing on a PAL television.

Disc handling precautions

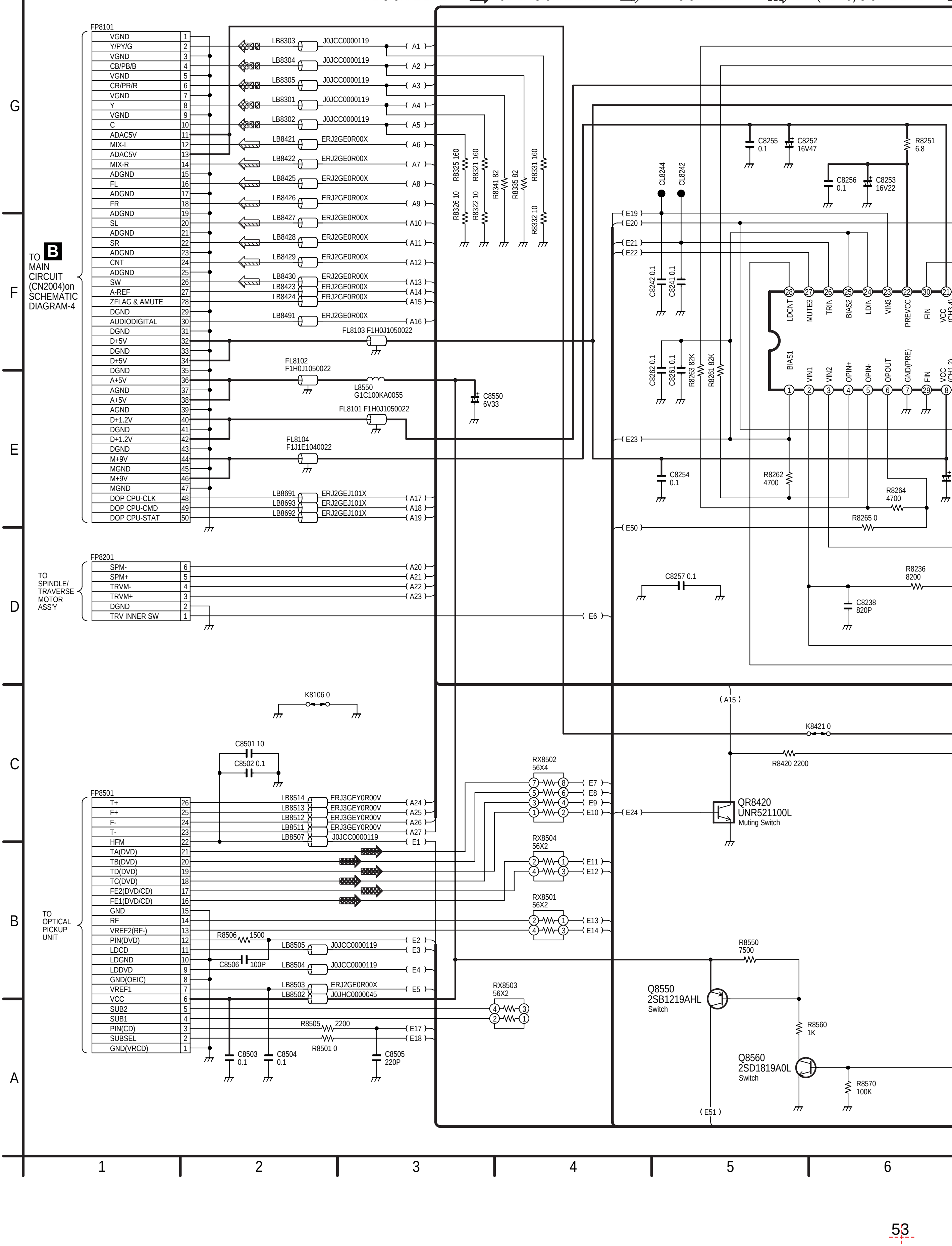
- Do not attach labels or stickers to discs (This may cause disc warping, rendering it unusable).
- Do not write on the label side with a ball-point pen or other writing instrument.
- Do not use record cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent.
- Do not use scratch-proof protectors or covers.
- Do not use the following discs:
  - Discs with exposed adhesive from removed stickers or labels (rented discs, etc).
  - Discs that are badly warped or cracked.
  - Irregularly shaped discs, such as heart shapes.

23 Schematic Diagram

SCHEMATIC DIAGRAM-1

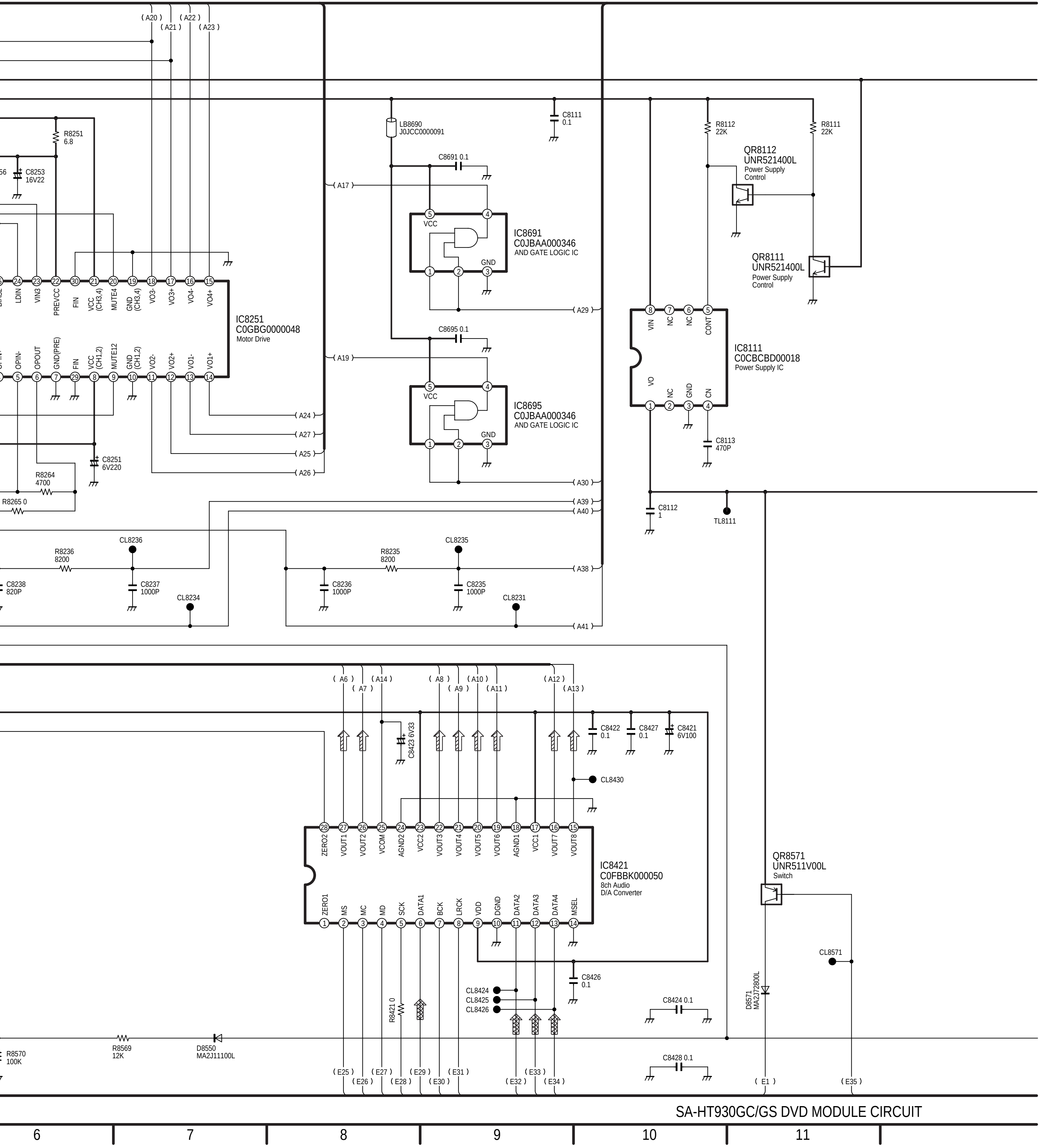
A DVD MODULE CIRCUIT

— :+B SIGNAL LINE ▶ :CD-DA SIGNAL LINE ⇨ :MAIN SIGNAL LINE ▶ :DVD(VIDEO) SIGNAL LINE



G
F
E
D
C
B
A
1
2
3
4
5
6
FP8101
VGND 1
Y/PY/G 2
VGND 3
CB/PB/B 4
VGND 5
CR/PR/R 6
VGND 7
Y 8
VGND 9
C 10
ADAC5V 11
MIX-L 12
ADAC5V 13
MIX-R 14
ADGND 15
FL 16
ADGND 17
FR 18
ADGND 19
SL 20
ADGND 21
SR 22
ADGND 23
CNT 24
ADGND 25
SW 26
A-REF 27
ZFLAG & AMUTE 28
DGND 29
AUDIODIGITAL 30
DGND 31
D+5V 32
DGND 33
D+5V 34
DGND 35
A+5V 36
AGND 37
A+5V 38
AGND 39
D+1.2V 40
DGND 41
D+1.2V 42
DGND 43
M+9V 44
MGND 45
M+9V 46
MGND 47
DOP CPU-CLK 48
DOP CPU-CMD 49
DOP CPU-STAT 50
TO B MAIN CIRCUIT (CN2004)on SCHEMATIC DIAGRAM-4
LB8303 J0JCC0000119 A1
LB8304 J0JCC0000119 A2
LB8305 J0JCC0000119 A3
LB8301 J0JCC0000119 A4
LB8302 J0JCC0000119 A5
LB8421 ERJ2GE0R00X A6
LB8422 ERJ2GE0R00X A7
LB8425 ERJ2GE0R00X A8
LB8426 ERJ2GE0R00X A9
LB8427 ERJ2GE0R00X A10
LB8428 ERJ2GE0R00X A11
LB8429 ERJ2GE0R00X A12
LB8430 ERJ2GE0R00X A13
LB8423 ERJ2GE0R00X A14
LB8424 ERJ2GE0R00X A15
LB8491 ERJ2GE0R00X A16
FL8103 F1H0J1050022
FL8102 F1H0J1050022
L8550 G1C100KA0055
C8550 6V33
FL8101 F1H0J1050022
FL8104 F1J1E1040022
LB8691 ERJ2GEJ101X A17
LB8693 ERJ2GEJ101X A18
LB8692 ERJ2GEJ101X A19
R8325 160
R8321 160
R8341 82
R8335 82
R8331 160
R8326 10
R8322 10
R8332 10
CL8244
CL8242
E19
E20
E21
E22
C8242 0.1
C8241 0.1
C8262 0.1
C8261 0.1
R8263 82K
R8261 82K
E23
C8254 0.1
E50
C8255 0.1
C8252 16V47
R8251 6.8
C8256 0.1
C8253 16V22
28 LDCNT
27 MUTE3
26 TRIN
25 BIAS2
24 LDIN
23 VIN3
22 PREVCC
30 FIN
21 VCC (CH3,4)
BIAS1
1 VIN1
2 VIN2
3 OPIN+
4 OPIN-
5 OPOUT
6 GND(PRE)
7 FIN
29 VCC (CH1,2)
8
R8262 4700
R8264 4700
R8265 0
R8236 8200
C8238 820P
C8257 0.1
FP8201
SPM- 6
SPM+ 5
TRVM- 4
TRVM+ 3
DGND 2
TRV INNER SW 1
TO SPINDLE/ TRAVERSE MOTOR ASS'Y
A20
A21
A22
A23
E6
K8106 0
A15
K8421 0
R8420 2200
QR8420 UNR521100L Muting Switch
E24
C8501 10
C8502 0.1
FP8501
T+ 26
F+ 25
F- 24
T- 23
HFM 22
TA(DVD) 21
TB(DVD) 20
TD(DVD) 19
TC(DVD) 18
FE2(DVD/CD) 17
FE1(DVD/CD) 16
GND 15
RF 14
VREF2(RF-) 13
PIN(DVD) 12
LDCD 11
LDGND 10
LDDVD 9
GND(OEIC) 8
VREF1 7
VCC 6
SUB2 5
SUB1 4
PIN(CD) 3
SUBSEL 2
GND(VRCD) 1
TO OPTICAL PICKUP UNIT
LB8514 ERJ3GEY0R00V A24
LB8513 ERJ3GEY0R00V A25
LB8512 ERJ3GEY0R00V A26
LB8511 ERJ3GEY0R00V A27
LB8507 J0JCC0000119 E1
RX8502 56X4
E7
E8
E9
E10
RX8504 56X2
E11
E12
RX8501 56X2
E13
E14
R8506 1500
C8506 100P
LB8505 J0JCC0000119 E2
E3
LB8504 J0JCC0000119 E4
LB8503 ERJ2GE0R00X
LB8502 J0JHC0000045 E5
RX8503 56X2
R8505 2200 E17
R8501 0 E18
C8503 0.1
C8504 0.1
C8505 220P
R8550 7500
Q8550 2SB1219AHL Switch
R8560 1K
Q8560 2SD1819A0L Switch
R8570 100K
E51

) SIGNAL LINE ▨ :DVD(AUDIO) SIGNAL LINE



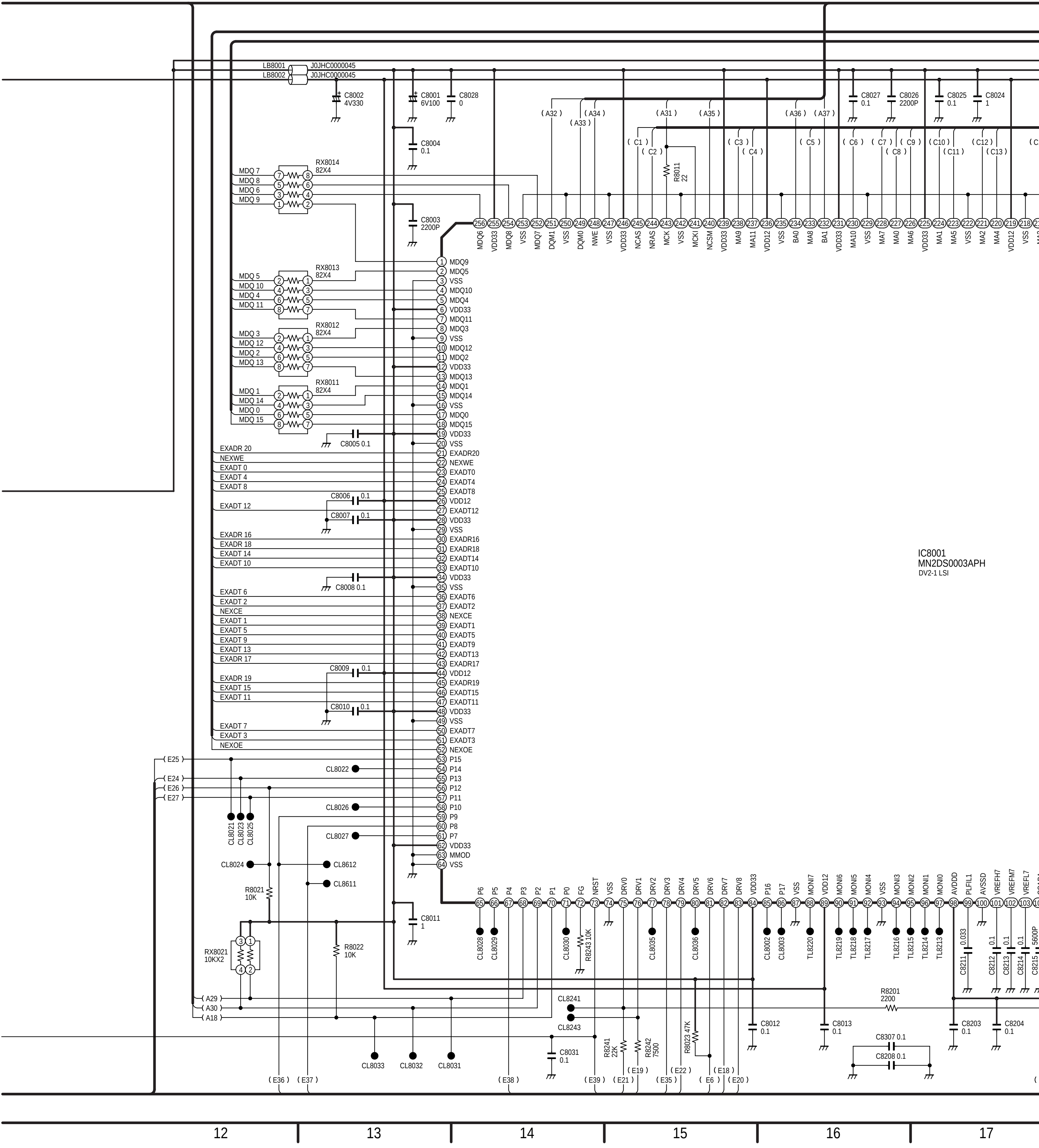
A20
A21
A22
A23
A17
A19
A24
A27
A25
A26
A29
A30
A39
A40
A38
A41
A6
A7
A14
A8
A9
A10
A11
A12
A13
E25
E26
E27
E28
E29
E30
E31
E32
E33
E34
E1
E35
R8251
6.8
C8253
16V22
IC8251
C0GBG0000048
Motor Drive
LDIN
VIN3
PREVCC
FIN
VCC (CH3,4)
MUTE4
GND (CH3,4)
VO3-
VO3+
VO4-
VO4+
OPIN-
OPOUT
GND(PRE)
FIN
VCC (CH1,2)
MUTE12
GND (CH1,2)
VO2-
VO2+
VO1-
VO1+
C8251
6V220
R8264
4700
R8265 0
R8236
8200
CL8236
C8238
820P
C8237
1000P
CL8234
R8235
8200
CL8235
C8236
1000P
C8235
1000P
CL8231
LB8690
J0JCC0000091
C8691 0.1
C8111
0.1
IC8691
C0JBAA000346
AND GATE LOGIC IC
VCC
GND
C8695 0.1
IC8695
C0JBAA000346
AND GATE LOGIC IC
R8112
22K
R8111
22K
QR8112
UNR521400L
Power Supply Control
QR8111
UNR521400L
Power Supply Control
IC8111
C0CBCBD00018
Power Supply IC
VIN
NC
NC
CONT
VO
NC
GND
CN
C8113
470P
C8112
1
TL8111
C8423 6V33
C8422
0.1
C8427
0.1
C8421
6V100
CL8430
ZERO2
VOUT1
VOUT2
VCOM
AGND2
VCC2
VOUT3
VOUT4
VOUT5
VOUT6
AGND1
VCC1
VOUT7
VOUT8
IC8421
C0FBBK000050
8ch Audio D/A Converter
ZERO1
MS
MC
MD
SCK
DATA1
BCK
LRCK
VDD
DGND
DATA2
DATA3
DATA4
MSEL
C8426
0.1
CL8424
CL8425
CL8426
R8421 0
C8424 0.1
C8428 0.1
QR8571
UNR511V00L
Switch
CL8571
D8571
MA2J72800L
R8570
100K
R8569
12K
D8550
MA2J11100L
6
7
8
9
10
11

SA-HT930GC/GS DVD MODULE CIRCUIT

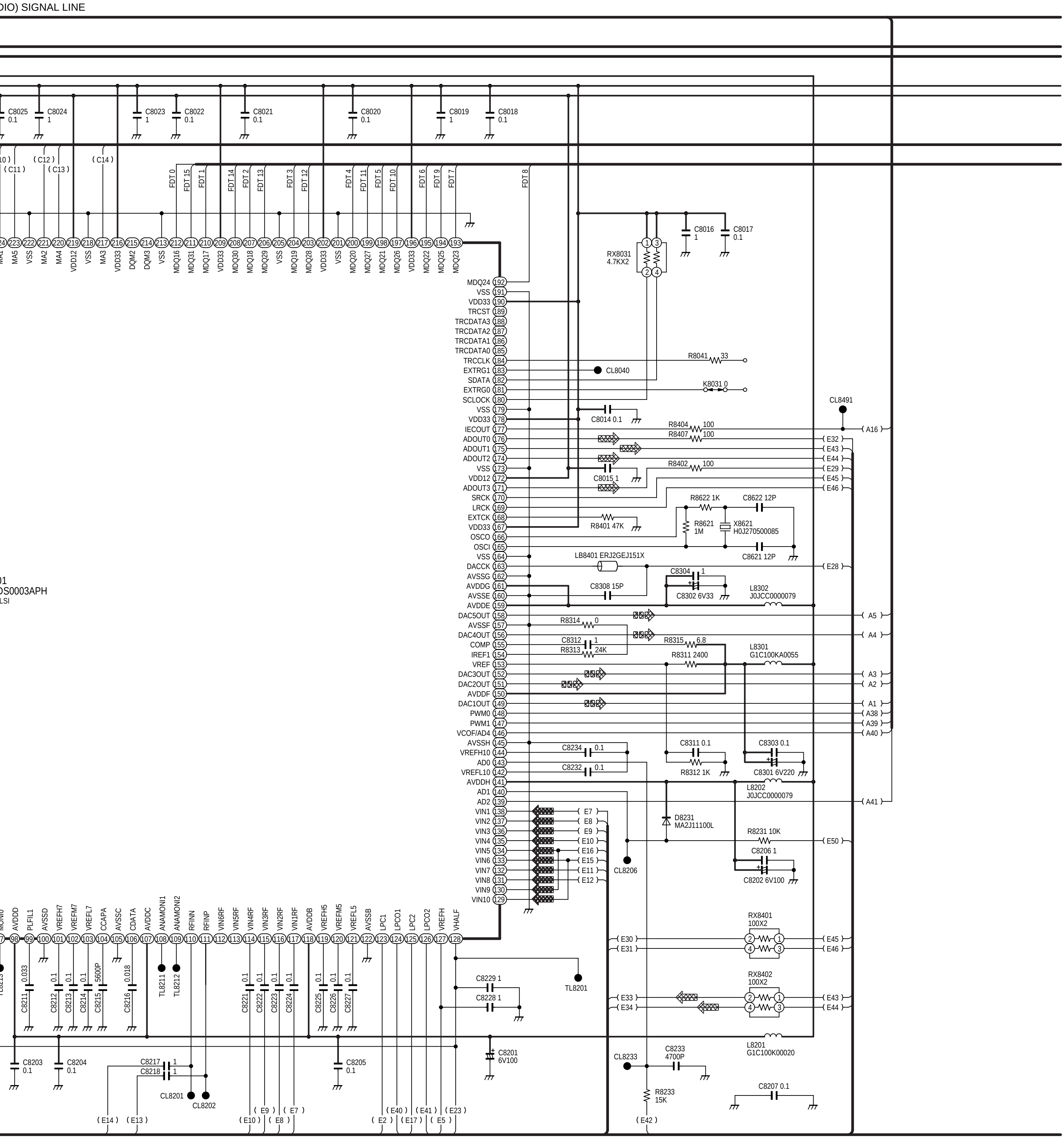
SCHEMATIC DIAGRAM-2

A DVD MODULE CIRCUIT

:+B SIGNAL LINE   :CD-DA SIGNAL LINE   :DVD(VIDEO) SIGNAL LINE   :DVD(AUDIO) SIGNAL LINE



LB8001 J0JHC0000045
LB8002 J0JHC0000045
C8002 4V330
C8001 6V100
C8028 0
C8004 0.1
C8003 2200P
C8027 0.1
C8026 2200P
C8025 0.1
C8024 1
RX8014 82X4
RX8013 82X4
RX8012 82X4
RX8011 82X4
MDQ 7
MDQ 8
MDQ 6
MDQ 9
MDQ 5
MDQ 10
MDQ 4
MDQ 11
MDQ 3
MDQ 12
MDQ 2
MDQ 13
MDQ 1
MDQ 14
MDQ 0
MDQ 15
R8011 22
(A31) (A32) (A33) (A34) (A35) (A36) (A37)
(C1) (C2) (C3) (C4) (C5) (C6) (C7) (C8) (C9) (C10) (C11) (C12) (C13)
MDQ6 VDD33 MDQ8 VSS MDQ7 DQM1 VSS DQM0 NWE VSS VDD33 NCAS NRAS MCK VSS MCKI NCSM VDD33 MA9 MA11 VDD12 VSS BA0 MA8 BA1 VDD33 MA10 VSS MA7 MA0 MA6 VDD33 MA1 MA5 VSS MA2 MA4 VDD12 VSS
1 MDQ9
2 MDQ5
3 VSS
4 MDQ10
5 MDQ4
6 VDD33
7 MDQ11
8 MDQ3
9 VSS
10 MDQ12
11 MDQ2
12 VDD33
13 MDQ13
14 MDQ1
15 MDQ14
16 VSS
17 MDQ0
18 MDQ15
19 VDD33
20 VSS
21 EXADR20
22 NEXWE
23 EXADT0
24 EXADT4
25 EXADT8
26 VDD12
27 EXADT12
28 VDD33
29 VSS
30 EXADR16
31 EXADR18
32 EXADT14
33 EXADT10
34 VDD33
35 VSS
36 EXADT6
37 EXADT2
38 NEXCE
39 EXADT1
40 EXADT5
41 EXADT9
42 EXADT13
43 EXADR17
44 VDD12
45 EXADR19
46 EXADT15
47 EXADT11
48 VDD33
49 VSS
50 EXADT7
51 EXADT3
52 NEXOE
53 P15
54 P14
55 P13
56 P12
57 P11
58 P10
59 P9
60 P8
61 P7
62 VDD33
63 MMOD
64 VSS
C8005 0.1
C8006 0.1
C8007 0.1
C8008 0.1
C8009 0.1
C8010 0.1
EXADR 20
NEXWE
EXADT 0
EXADT 4
EXADT 8
EXADT 12
EXADR 16
EXADR 18
EXADT 14
EXADT 10
EXADT 6
EXADT 2
NEXCE
EXADT 1
EXADT 5
EXADT 9
EXADT 13
EXADR 17
EXADR 19
EXADT 15
EXADT 11
EXADT 7
EXADT 3
NEXOE
IC8001
MN2DS0003APH
DV2-1 LSI
(E25) (E24) (E26) (E27)
CL8022
CL8026
CL8027
CL8021 CL8023 CL8025
CL8024
CL8612
CL8611
R8021 10K
RX8021 10KX2
R8022 10K
C8011 1
(A29) (A30) (A18)
CL8033 CL8032 CL8031
P6 P5 P4 P3 P2 P1 P0 FG NRST VSS DRV0 DRV1 DRV2 DRV3 DRV4 DRV5 DRV6 DRV7 DRV8 VDD33 P16 P17 VSS MONI7 VDD12 MONI6 MONI5 MONI4 VSS MONI3 MONI2 MONI1 MONI0 AVDDD PLFIL1 AVSSD VREFH7 VREFM7 VREFL7
CL8028 CL8029 CL8030 R8243 10K CL8035 CL8036 CL8002 CL8003 TL8220 TL8219 TL8218 TL8217 TL8216 TL8215 TL8214 TL8213
C8211 0.033
C8212 0.1
C8213 0.1
C8214 0.1
C8215 5600P
CL8241
CL8243
C8031 0.1
R8241 22K
R8242 7500
R8023 47K
C8012 0.1
C8013 0.1
R8201 2200
C8307 0.1
C8208 0.1
C8203 0.1
C8204 0.1
(E36) (E37) (E38) (E39) (E21) (E19) (E35) (E22) (E6) (E18) (E20)
12
13
14
15
16
17

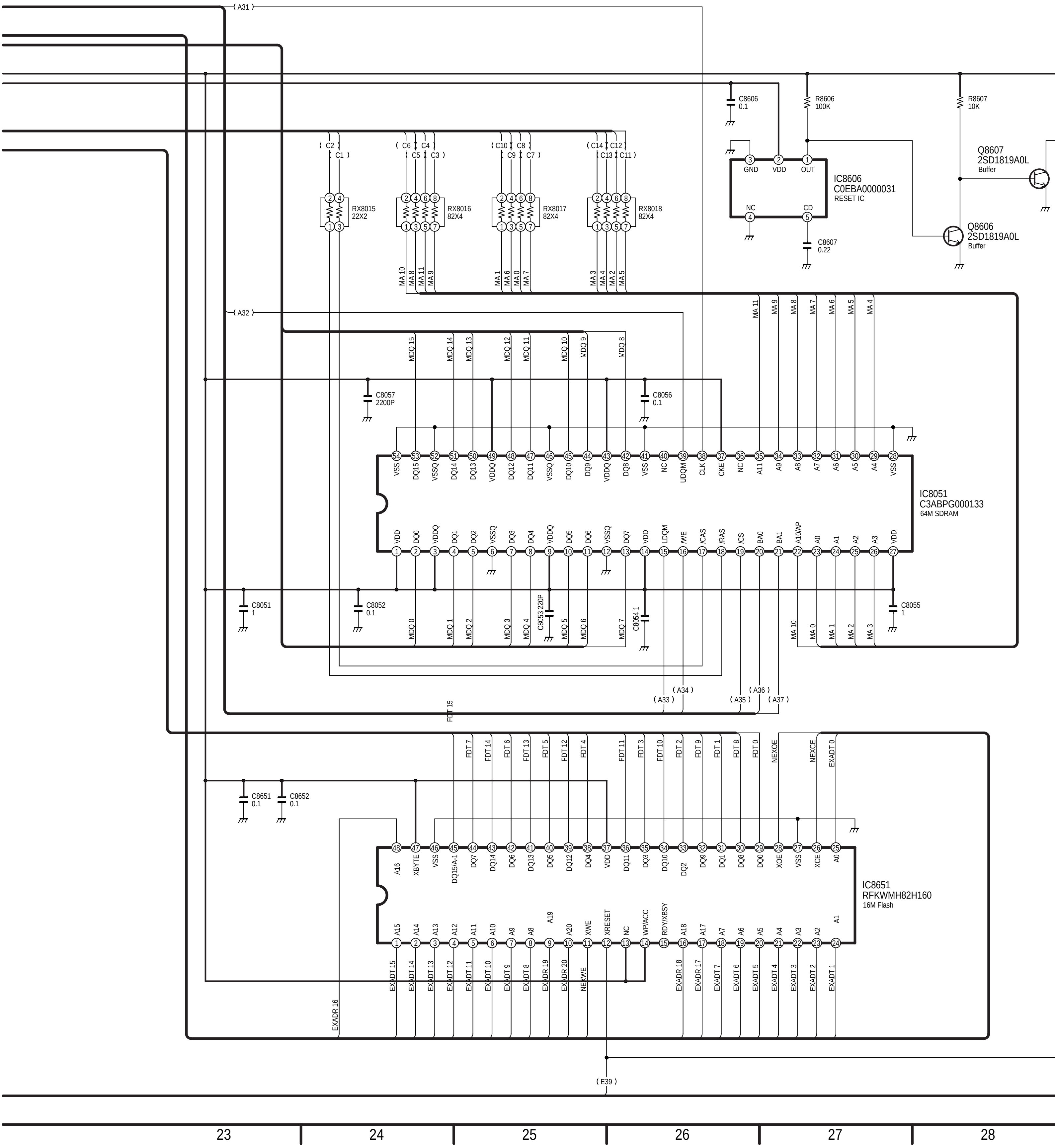

DIO) SIGNAL LINE
C8025 0.1
C8024 1
C8023 1
C8022 0.1
C8021 0.1
C8020 0.1
C8019 1
C8018 0.1
(C11)
(C12)
(C13)
(C14)
FDT 0
FDT 15
FDT 1
FDT 14
FDT 2
FDT 13
FDT 3
FDT 12
FDT 4
FDT 11
FDT 5
FDT 10
FDT 6
FDT 9
FDT 7
FDT 8
MA1
MA5
VSS
MA2
MA4
VDD12
VSS
MA3
VDD33
DQM2
DQM3
VSS
MDQ16
MDQ31
MDQ17
VDD33
MDQ30
MDQ18
MDQ29
VSS
MDQ19
MDQ28
VDD33
VSS
MDQ20
MDQ27
MDQ21
MDQ26
VDD33
MDQ22
MDQ25
MDQ23
223 222 221 220 219 218 217 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 200 199 198 197 196 195 194 193
C8016 1
C8017 0.1
RX8031 4.7KX2
1 3 2 4
MDQ24 192
VSS 191
VDD33 190
TRCST 189
TRCDATA3 188
TRCDATA2 187
TRCDATA1 186
TRCDATA0 185
TRCCLK 184
EXTRG1 183
SDATA 182
EXTRG0 181
SCLOCK 180
VSS 179
VDD33 178
IECOUT 177
ADOUT0 176
ADOUT1 175
ADOUT2 174
VSS 173
VDD12 172
ADOUT3 171
SRCK 170
LRCK 169
EXTCK 168
VDD33 167
OSCO 166
OSCI 165
VSS 164
DACCK 163
AVSSG 162
AVDDG 161
AVSSE 160
AVDDE 159
DAC5OUT 158
AVSSF 157
DAC4OUT 156
COMP 155
IREF1 154
VREF 153
DAC3OUT 152
DAC2OUT 151
AVDDF 150
DAC1OUT 149
PWM0 148
PWM1 147
VCOF/AD4 146
AVSSH 145
VREFH10 144
AD0 143
VREFL10 142
AVDDH 141
AD1 140
AD2 139
VIN1 138
VIN2 137
VIN3 136
VIN4 135
VIN5 134
VIN6 133
VIN7 132
VIN8 131
VIN9 130
VIN10 129
R8041 33
CL8040
K8031 0
CL8491
C8014 0.1
R8404 100
R8407 100
R8402 100
C8015 1
A16
E32
E43
E44
E29
E45
E46
R8622 1K
C8622 12P
R8621 1M
X8621 H0J270500085
R8401 47K
C8621 12P
LB8401 ERJ2GEJ151X
E28
C8304 1
C8308 15P
C8302 6V33
L8302 J0JCC0000079
A5
R8314 0
A4
C8312 1
R8313 24K
R8315 6.8
R8311 2400
L8301 G1C100KA0055
A3
A2
A1
A38
A39
A40
C8234 0.1
C8232 0.1
C8311 0.1
R8312 1K
C8303 0.1
C8301 6V220
L8202 J0JCC0000079
A41
D8231 MA2J11100L
R8231 10K
E50
C8206 1
C8202 6V100
CL8206
E7
E8
E9
E10
E16
E15
E11
E12
01
DS0003APH
LSI
MONI0
AVDDD
PLFIL1
AVSSD
VREFH7
VREFM7
VREFL7
CCAPA
AVSSC
CDATA
AVDDC
ANAMONI1
ANAMONI2
RFINN
RFINP
VIN6RF
VIN5RF
VIN4RF
VIN3RF
VIN2RF
VIN1RF
AVDDB
VREFH5
VREFM5
VREFL5
AVSSB
LPC1
LPCO1
LPC2
LPCO2
VREFH
VHALF
98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128
C8211 0.033
C8212 0.1
C8213 0.1
C8214 0.1
C8215 5600P
C8216 0.018
TL8211
TL8212
C8221 0.1
C8222 0.1
C8223 0.1
C8224 0.1
C8225 0.1
C8226 0.1
C8227 0.1
C8229 1
C8228 1
TL8201
RX8401 100X2
E30
E31
E45
E46
RX8402 100X2
E33
E34
E43
E44
C8203 0.1
C8204 0.1
C8217 1
C8218 1
CL8201
CL8202
C8205 0.1
C8201 6V100
CL8233
C8233 4700P
R8233 15K
L8201 G1C100K00020
C8207 0.1
E14
E13
E10
E9
E8
E7
E2
E40
E17
E41
E5
E23
E42

SA-HT930GC/GS DVD MODULE CIRCUIT

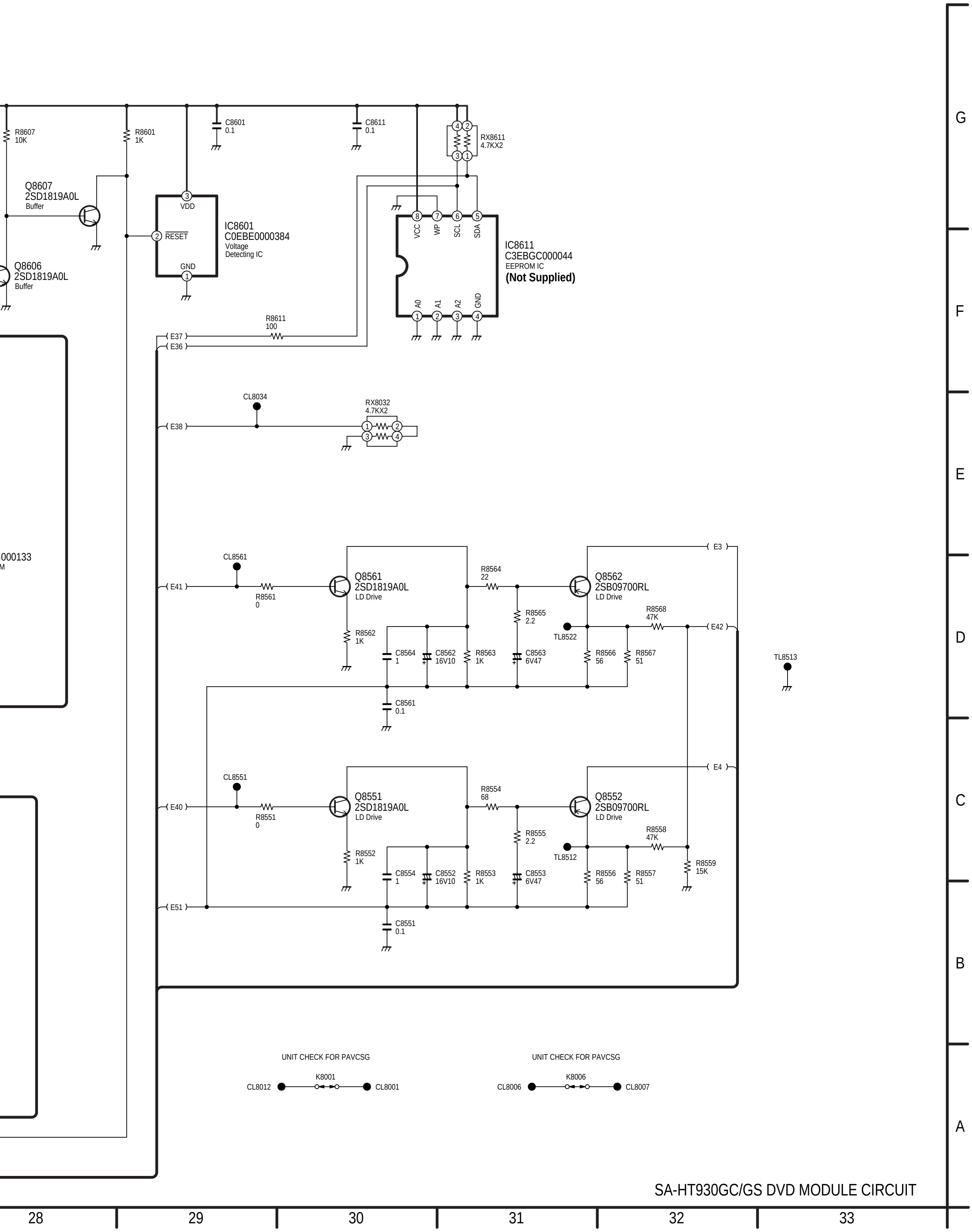
17 18 19 20 21 22

SCHEMATIC DIAGRAM-3

A DVD MODULE CIRCUIT



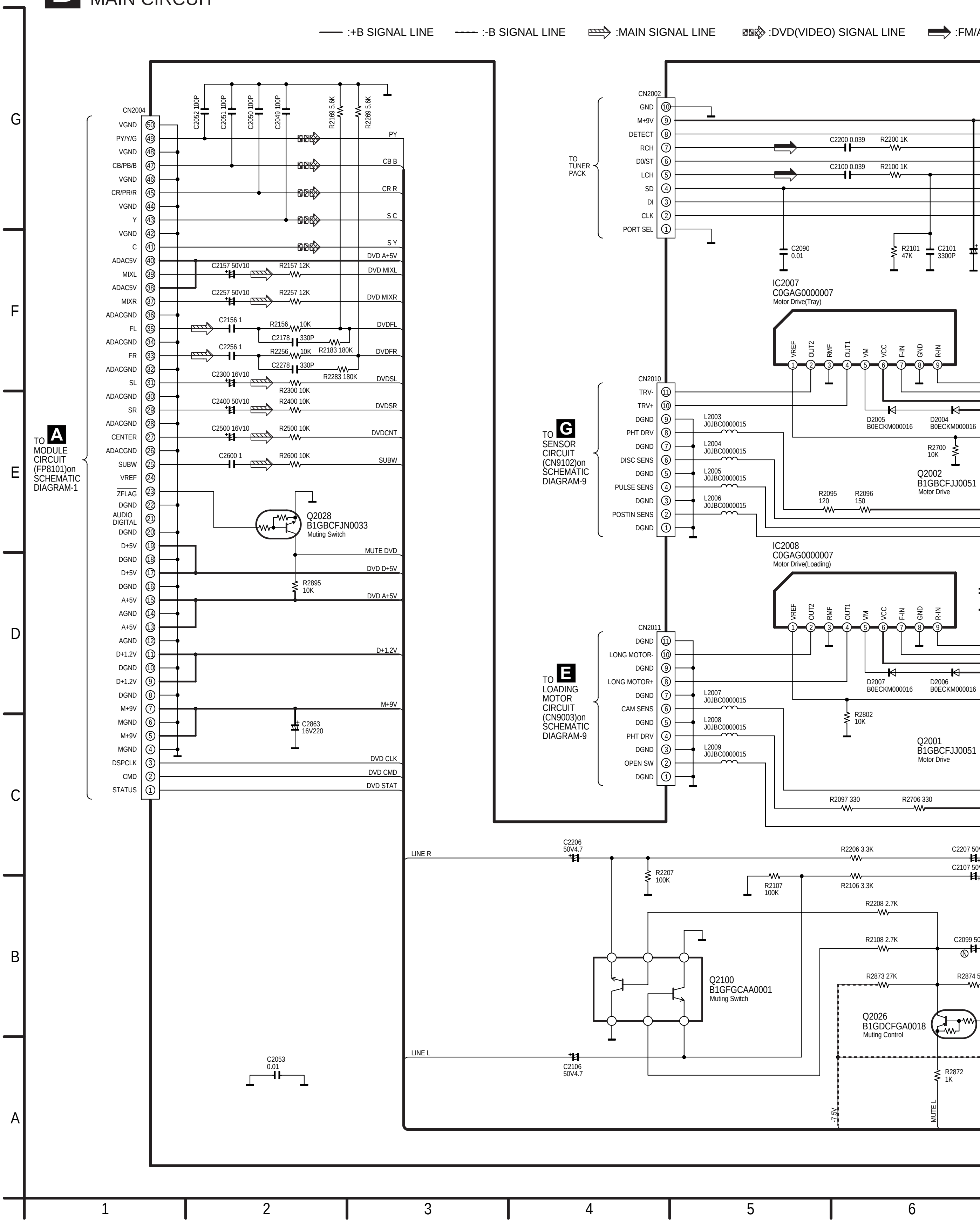
A31
A32
A33
A34
A35
A36
A37
E39
C1
C2
C3
C4
C5
C6
C7
C8
C9
C10
C11
C12
C13
C14
RX8015
22X2
RX8016
82X4
RX8017
82X4
RX8018
82X4
C8606
0.1
R8606
100K
R8607
10K
IC8606
C0EBA0000031
RESET IC
GND
VDD
OUT
NC
CD
C8607
0.22
Q8607
2SD1819A0L
Buffer
Q8606
2SD1819A0L
Buffer
C8057
2200P
C8056
0.1
IC8051
C3ABPG000133
64M SDRAM
VSS
DQ15
VSSQ
DQ14
DQ13
VDDQ
DQ12
DQ11
DQ10
DQ9
DQ8
NC
UDQM
CLK
CKE
A11
A9
A8
A7
A6
A5
A4
VDD
DQ0
DQ1
DQ2
DQ3
DQ4
DQ5
DQ6
DQ7
LDQM
/WE
/CAS
/RAS
/CS
BA0
BA1
A10/AP
A0
A1
A2
A3
C8051
1
C8052
0.1
C8053 220P
C8054 1
C8055
1
MA 0
MA 1
MA 2
MA 3
MA 4
MA 5
MA 6
MA 7
MA 8
MA 9
MA 10
MA 11
MDQ 0
MDQ 1
MDQ 2
MDQ 3
MDQ 4
MDQ 5
MDQ 6
MDQ 7
MDQ 8
MDQ 9
MDQ 10
MDQ 11
MDQ 12
MDQ 13
MDQ 14
MDQ 15
C8651
0.1
C8652
0.1
IC8651
RFKWMH82H160
16M Flash
A16
XBYTE
DQ15/A-1
XOE
XCE
A19
A20
XWE
XRESET
WP/ACC
RDY/XBSY
A18
A17
FDT 0
FDT 1
FDT 2
FDT 3
FDT 4
FDT 5
FDT 6
FDT 7
FDT 8
FDT 9
FDT 10
FDT 11
FDT 12
FDT 13
FDT 14
FDT 15
NEXOE
NEXCE
NEXWE
EXADT 0
EXADT 1
EXADT 2
EXADT 3
EXADT 4
EXADT 5
EXADT 6
EXADT 7
EXADT 8
EXADT 9
EXADT 10
EXADT 11
EXADT 12
EXADT 13
EXADT 14
EXADT 15
EXADR 16
EXADR 17
EXADR 18
EXADR 19
EXADR 20
23
24
25
26
27
28


R8607
10K
R8601
1K
C8601
0.1
C8611
0.1
RX8611
4.7KX2
Q8607
2SD1819A0L
Buffer
Q8606
2SD1819A0L
Buffer
VDD
RESET
GND
IC8601
C0EBE0000384
Voltage
Detecting IC
VCC
WP
SCL
SDA
A0
A1
A2
GND
IC8611
C3EBGC000044
EEPROM IC
(Not Supplied)
R8611
100
E37
E36
CL8034
RX8032
4.7KX2
E38
000133
M
CL8561
E41
R8561
0
Q8561
2SD1819A0L
LD Drive
R8562
1K
C8564
1
C8562
16V10
R8563
1K
R8564
22
R8565
2.2
C8563
6V47
Q8562
2SB09700RL
LD Drive
TL8522
R8566
56
R8567
51
R8568
47K
E3
E42
TL8513
C8561
0.1
CL8551
E40
R8551
0
Q8551
2SD1819A0L
LD Drive
R8552
1K
C8554
1
C8552
16V10
R8553
1K
R8554
68
R8555
2.2
C8553
6V47
Q8552
2SB09700RL
LD Drive
TL8512
R8556
56
R8557
51
R8558
47K
R8559
15K
E4
E51
C8551
0.1
UNIT CHECK FOR PAVCSG
K8001
CL8012
CL8001
UNIT CHECK FOR PAVCSG
K8006
CL8006
CL8007
G
F
E
D
C
B
A
28
29
30
31
32
33

SA-HT930GC/GS DVD MODULE CIRCUIT

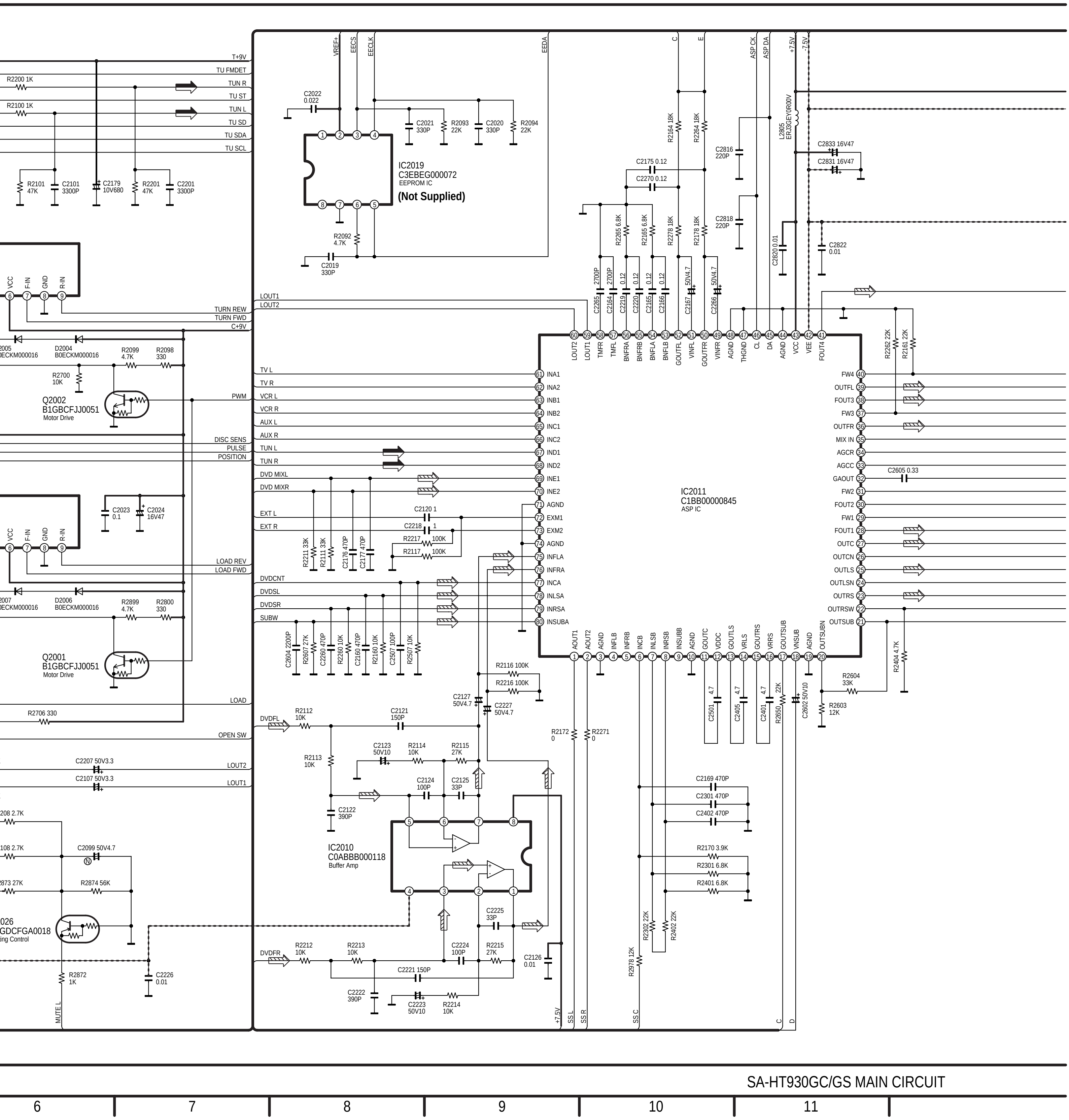
SCHEMATIC DIAGRAM-4

B MAIN CIRCUIT



:+B SIGNAL LINE
:-B SIGNAL LINE
:MAIN SIGNAL LINE
:DVD(VIDEO) SIGNAL LINE
:FM/A
G
F
E
D
C
B
A
1
2
3
4
5
6
CN2004
VGND 50
PY/Y/G 49
VGND 48
CB/PB/B 47
VGND 46
CR/PR/R 45
VGND 44
Y 43
VGND 42
C 41
ADAC5V 40
MIXL 39
ADAC5V 38
MIXR 37
ADACGND 36
FL 35
ADACGND 34
FR 33
ADACGND 32
SL 31
ADACGND 30
SR 29
ADACGND 28
CENTER 27
ADACGND 26
SUBW 25
VREF 24
ZFLAG 23
DGND 22
AUDIO DIGITAL 21
DGND 20
D+5V 19
DGND 18
D+5V 17
DGND 16
A+5V 15
AGND 14
A+5V 13
AGND 12
D+1.2V 11
DGND 10
D+1.2V 9
DGND 8
M+9V 7
MGND 6
M+9V 5
MGND 4
DSPCLK 3
CMD 2
STATUS 1
TO A MODULE CIRCUIT (FP8101)on SCHEMATIC DIAGRAM-1
C2052 100P
C2051 100P
C2050 100P
C2049 100P
R2169 5.6K
R2269 5.6K
PY
CB B
CR R
S C
S Y
DVD A+5V
C2157 50V10
R2157 12K
DVD MIXL
C2257 50V10
R2257 12K
DVD MIXR
C2156 1
R2156 10K
DVDFL
C2178 330P
R2183 180K
C2256 1
R2256 10K
DVDFR
C2278 330P
R2283 180K
C2300 16V10
DVDSL
R2300 10K
C2400 50V10
R2400 10K
DVDSR
C2500 16V10
R2500 10K
DVDCNT
C2600 1
R2600 10K
SUBW
Q2028
B1GBCFJN0033
Muting Switch
MUTE DVD
DVD D+5V
R2895 10K
DVD A+5V
D+1.2V
M+9V
C2863 16V220
DVD CLK
DVD CMD
DVD STAT
C2053 0.01
LINE R
LINE L
CN2002
GND 10
M+9V 9
DETECT 8
RCH 7
D0/ST 6
LCH 5
SD 4
DI 3
CLK 2
PORT SEL 1
TO TUNER PACK
C2200 0.039
R2200 1K
C2100 0.039
R2100 1K
C2090 0.01
R2101 47K
C2101 3300P
IC2007
C0GAG0000007
Motor Drive(Tray)
VREF
OUT2
RMF
OUT1
VM
VCC
F-IN
GND
R-IN
CN2010
TRV- 11
TRV+ 10
DGND 9
PHT DRV 8
DGND 7
DISC SENS 6
DGND 5
PULSE SENS 4
DGND 3
POSTIN SENS 2
DGND 1
TO G SENSOR CIRCUIT (CN9102)on SCHEMATIC DIAGRAM-9
L2003 J0JBC0000015
L2004 J0JBC0000015
L2005 J0JBC0000015
L2006 J0JBC0000015
D2005 B0ECKM000016
D2004 B0ECKM000016
R2700 10K
Q2002
B1GBCFJJ0051
Motor Drive
R2095 120
R2096 150
IC2008
C0GAG0000007
Motor Drive(Loading)
CN2011
DGND 11
LONG MOTOR- 10
DGND 9
LONG MOTOR+ 8
DGND 7
CAM SENS 6
DGND 5
PHT DRV 4
DGND 3
OPEN SW 2
DGND 1
TO E LOADING MOTOR CIRCUIT (CN9003)on SCHEMATIC DIAGRAM-9
L2007 J0JBC0000015
L2008 J0JBC0000015
L2009 J0JBC0000015
D2007 B0ECKM000016
D2006 B0ECKM000016
R2802 10K
Q2001
B1GBCFJJ0051
Motor Drive
R2097 330
R2706 330
C2206 50V4.7
R2206 3.3K
C2207 50
C2107 50
R2207 100K
R2107 100K
R2106 3.3K
R2208 2.7K
R2108 2.7K
C2099 50
R2873 27K
R2874 5
Q2100
B1GFGCAA0001
Muting Switch
Q2026
B1GDCFGA0018
Muting Control
C2106 50V4.7
R2872 1K
-7.5V
MUTE L

L LINE :FM/AM SIGNAL LINE

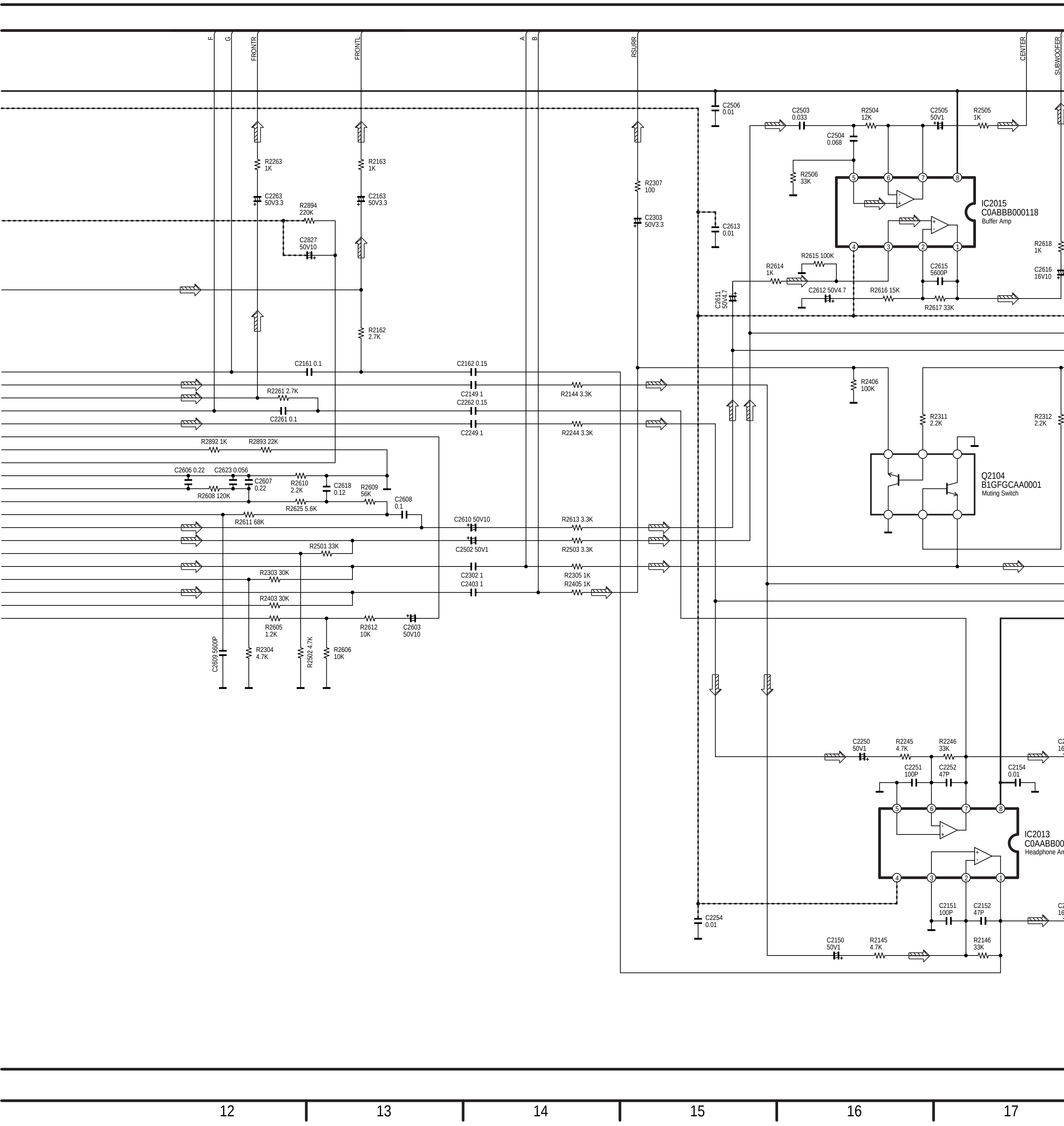

T+9V
TU FMDET
TUN R
TU ST
TUN L
TU SD
TU SDA
TU SCL
R2200 1K
R2100 1K
R2101 47K
C2101 3300P
C2179 10V680
R2201 47K
C2201 3300P
VREF+
EECS
EECLK
EEDA
C2022 0.022
C2021 330P
R2093 22K
C2020 330P
R2094 22K
IC2019
C3EBEG000072
EEPROM IC
(Not Supplied)
R2092 4.7K
C2019 330P
VCC
F-IN
GND
R-IN
LOUT1
LOUT2
TURN REW
TURN FWD
C+9V
D2005 B0ECKM000016
D2004 B0ECKM000016
R2099 4.7K
R2098 330
R2700 10K
Q2002
B1GBCFJJ0051
Motor Drive
PWM
TV L
TV R
VCR L
VCR R
AUX L
AUX R
DISC SENS
PULSE
POSITION
TUN L
TUN R
DVD MIXL
DVD MIXR
C2023 0.1
C2024 16V47
EXT L
EXT R
C2120 1
C2218 1
R2217 100K
R2117 100K
R2211 33K
R2111 33K
C2176 470P
C2177 470P
LOAD REV
LOAD FWD
D2007 B0ECKM000016
D2006 B0ECKM000016
R2899 4.7K
R2800 330
DVDCNT
DVDSL
DVDSR
SUBW
C2604 2200P
R2607 27K
C2260 470P
R2260 10K
C2160 470P
R2160 10K
C2507 100P
R2507 10K
Q2001
B1GBCFJJ0051
Motor Drive
LOAD
R2706 330
OPEN SW
C2207 50V3.3
C2107 50V3.3
LOUT2
LOUT1
R2208 2.7K
R2108 2.7K
C2099 50V4.7
R2873 27K
R2874 56K
Q2026
B1GDCFGA0018
Muting Control
R2872 1K
C2226 0.01
MUTE L
DVDFL
R2112 10K
C2121 150P
R2113 10K
C2123 50V10
R2114 10K
R2115 27K
C2124 100P
C2125 33P
C2122 390P
IC2010
C0ABBB000118
Buffer Amp
C2225 33P
DVDFR
R2212 10K
R2213 10K
C2224 100P
R2215 27K
C2126 0.01
C2221 150P
C2222 390P
C2223 50V10
R2214 10K
R2116 100K
R2216 100K
C2127 50V4.7
C2227 50V4.7
R2172 0
R2271 0
+7.5V
SS L
SS R
SS C
C
D
C
E
ASP CK
ASP DA
+7.5V
-7.5V
R2164 18K
R2264 18K
C2816 220P
L2805 ERJ3GEY0R00V
C2833 16V47
C2831 16V47
C2175 0.12
C2270 0.12
R2265 6.8K
R2165 6.8K
R2278 18K
R2178 18K
C2818 220P
C2820 0.01
C2822 0.01
C2265 2700P
C2164 2700P
C2219 0.12
C2220 0.12
C2165 0.12
C2166 0.12
C2167 50V4.7
C2266 50V4.7
LOUT2
LOUT1
TMFR
TMFL
BNFRA
BNFRB
BNFLA
BNFLB
GOUTFL
VINFL
GOUTFR
VINFR
AGND
THGND
CL
DA
AGND
VCC
VEE
FOUT4
R2262 22K
R2161 22K
INA1
INA2
INB1
INB2
INC1
INC2
IND1
IND2
INE1
INE2
AGND
EXM1
EXM2
AGND
INFLA
INFRA
INCA
INLSA
INRSA
INSUBA
IC2011
C1BB00000845
ASP IC
FW4
OUTFL
FOUT3
FW3
OUTFR
MIX IN
AGCR
AGCC
GAOUT
C2605 0.33
FW2
FOUT2
FW1
FOUT1
OUTC
OUTCN
OUTLS
OUTLSN
OUTRS
OUTRSW
OUTSUB
AOUT1
AOUT2
AGND
INFLB
INFRB
INCB
INLSB
INRSB
INSUBB
AGND
GOUTC
VDDC
GOUTLS
VRLS
GOUTRS
VRRS
GOUTSUB
VNSUB
AGND
OUTSUBN
R2404 4.7K
R2604 33K
R2603 12K
C2501 4.7
C2405 4.7
C2401 4.7
R2650 22K
C2602 50V10
C2169 470P
C2301 470P
C2402 470P
R2170 3.9K
R2301 6.8K
R2401 6.8K
R2302 22K
R2402 22K
R2978 12K
6
7
8
9
10
11

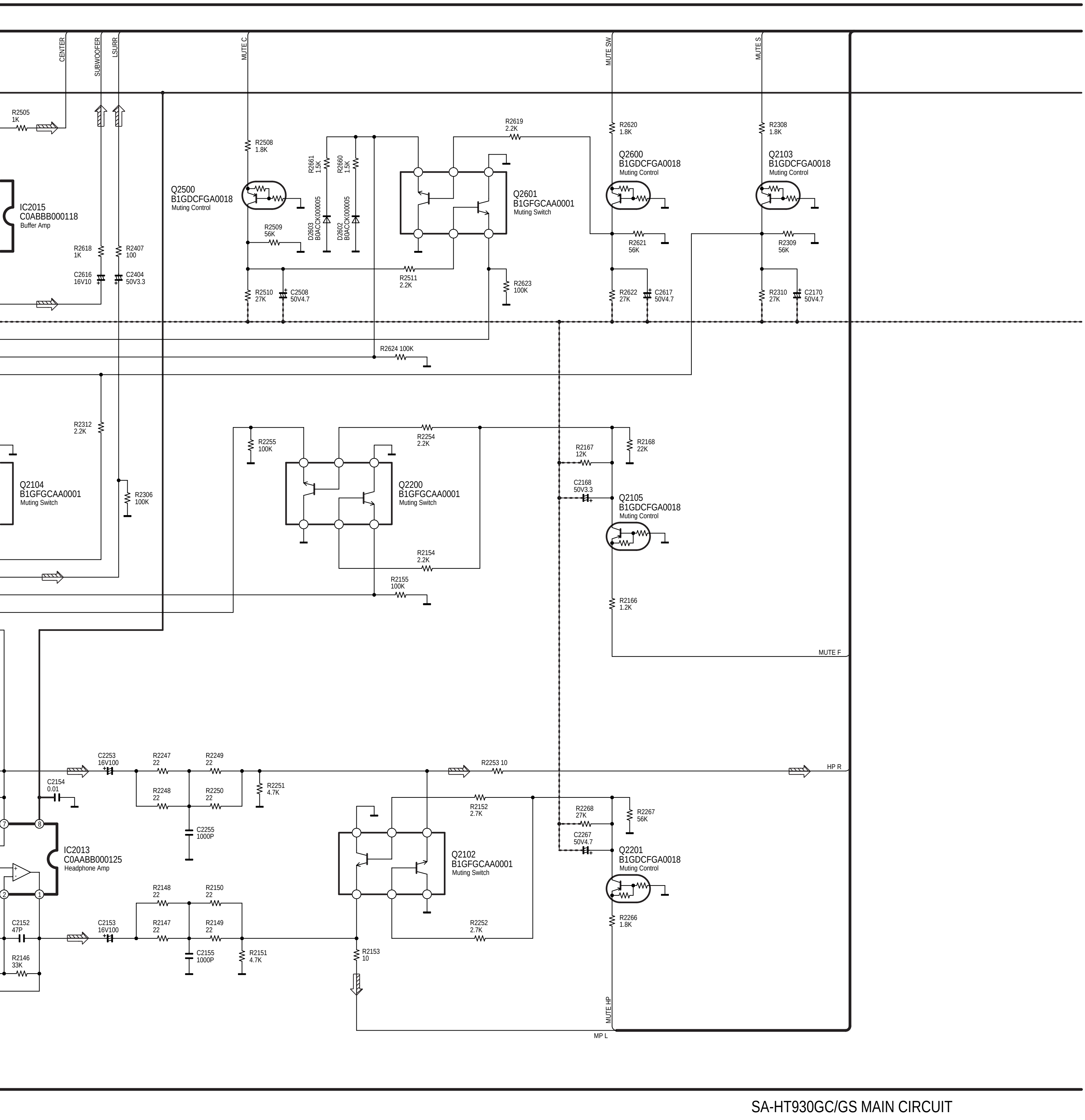
SA-HT930GC/GS MAIN CIRCUIT

SCHEMATIC DIAGRAM-5

B MAIN CIRCUIT

—— :+B SIGNAL LINE ---- :-B SIGNAL LINE ⇨ :MAIN SIGNAL LINE


F
G
FRONTR
FRONTL
A
B
RSURR
CENTER
SUBWOOFER
C2506 0.01
C2503 0.033
R2504 12K
C2505 50V1
R2505 1K
C2504 0.068
R2506 33K
IC2015
C0ABBB000118
Buffer Amp
R2618 1K
C2616 16V10
R2263 1K
R2163 1K
C2263 50V3.3
C2163 50V3.3
R2894 220K
C2827 50V10
R2307 100
C2303 50V3.3
C2613 0.01
R2615 100K
R2614 1K
C2615 5600P
C2612 50V4.7
R2616 15K
R2617 33K
C2611 50V4.7
R2162 2.7K
C2161 0.1
C2162 0.15
R2406 100K
C2149 1
R2144 3.3K
R2261 2.7K
C2262 0.15
C2261 0.1
C2249 1
R2244 3.3K
R2311 2.2K
R2312 2.2K
R2892 1K
R2893 22K
Q2104
B1GFGCAA0001
Muting Switch
C2606 0.22
C2623 0.056
C2607 0.22
R2610 2.2K
C2618 0.12
R2609 56K
R2608 120K
R2625 5.6K
C2608 0.1
R2611 68K
C2610 50V10
R2613 3.3K
C2502 50V1
R2503 3.3K
R2501 33K
R2303 30K
C2302 1
R2305 1K
C2403 1
R2405 1K
R2403 30K
R2605 1.2K
R2612 10K
C2603 50V10
C2609 5600P
R2304 4.7K
R2502 4.7K
R2606 10K
C2250 50V1
R2245 4.7K
R2246 33K
C2251 100P
C2252 47P
C2154 0.01
IC2013
C0AABB00
Headphone Am
C2254 0.01
C2151 100P
C2152 47P
C2150 50V1
R2145 4.7K
R2146 33K
12
13
14
15
16
17

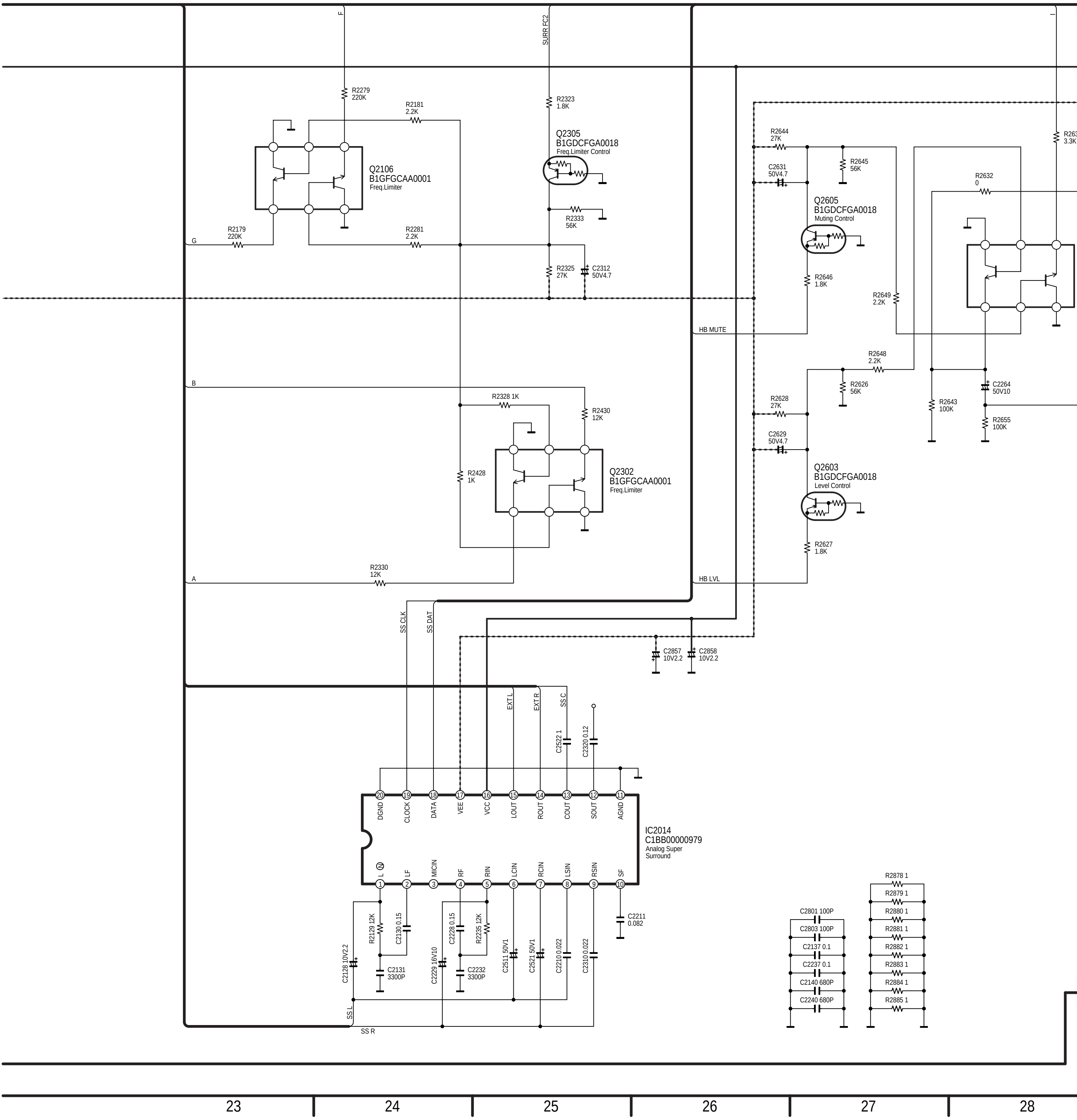

CENTER
SUBWOOFER
LSURR
MUTE C
MUTE SW
MUTE S
R2505 1K
R2508 1.8K
R2661 1.5K
R2660 1.5K
R2619 2.2K
R2620 1.8K
R2308 1.8K
Q2500 B1GDCFGA0018 Muting Control
IC2015 C0ABBB000118 Buffer Amp
D2603 B0ACCK000005
D2602 B0ACCK000005
Q2601 B1GFGCAA0001 Muting Switch
Q2600 B1GDCFGA0018 Muting Control
Q2103 B1GDCFGA0018 Muting Control
R2509 56K
R2621 56K
R2309 56K
R2618 1K
R2407 100
C2616 16V10
C2404 50V3.3
R2511 2.2K
R2623 100K
R2510 27K
C2508 50V4.7
R2622 27K
C2617 50V4.7
R2310 27K
C2170 50V4.7
R2624 100K
R2312 2.2K
R2255 100K
R2254 2.2K
R2168 22K
R2167 12K
Q2104 B1GFGCAA0001 Muting Switch
R2306 100K
Q2200 B1GFGCAA0001 Muting Switch
C2168 50V3.3
Q2105 B1GDCFGA0018 Muting Control
R2154 2.2K
R2155 100K
R2166 1.2K
MUTE F
C2253 16V100
R2247 22
R2249 22
R2253 10
HP R
C2154 0.01
R2248 22
R2250 22
R2251 4.7K
R2152 2.7K
R2268 27K
R2267 56K
C2255 1000P
C2267 50V4.7
IC2013 C0AABB000125 Headphone Amp
Q2102 B1GFGCAA0001 Muting Switch
Q2201 B1GDCFGA0018 Muting Control
7
8
2
1
R2148 22
R2150 22
R2266 1.8K
C2152 47P
C2153 16V100
R2147 22
R2149 22
R2252 2.7K
C2155 1000P
R2151 4.7K
R2153 10
R2146 33K
MUTE HP
MP L
17
18
19
20
21
22

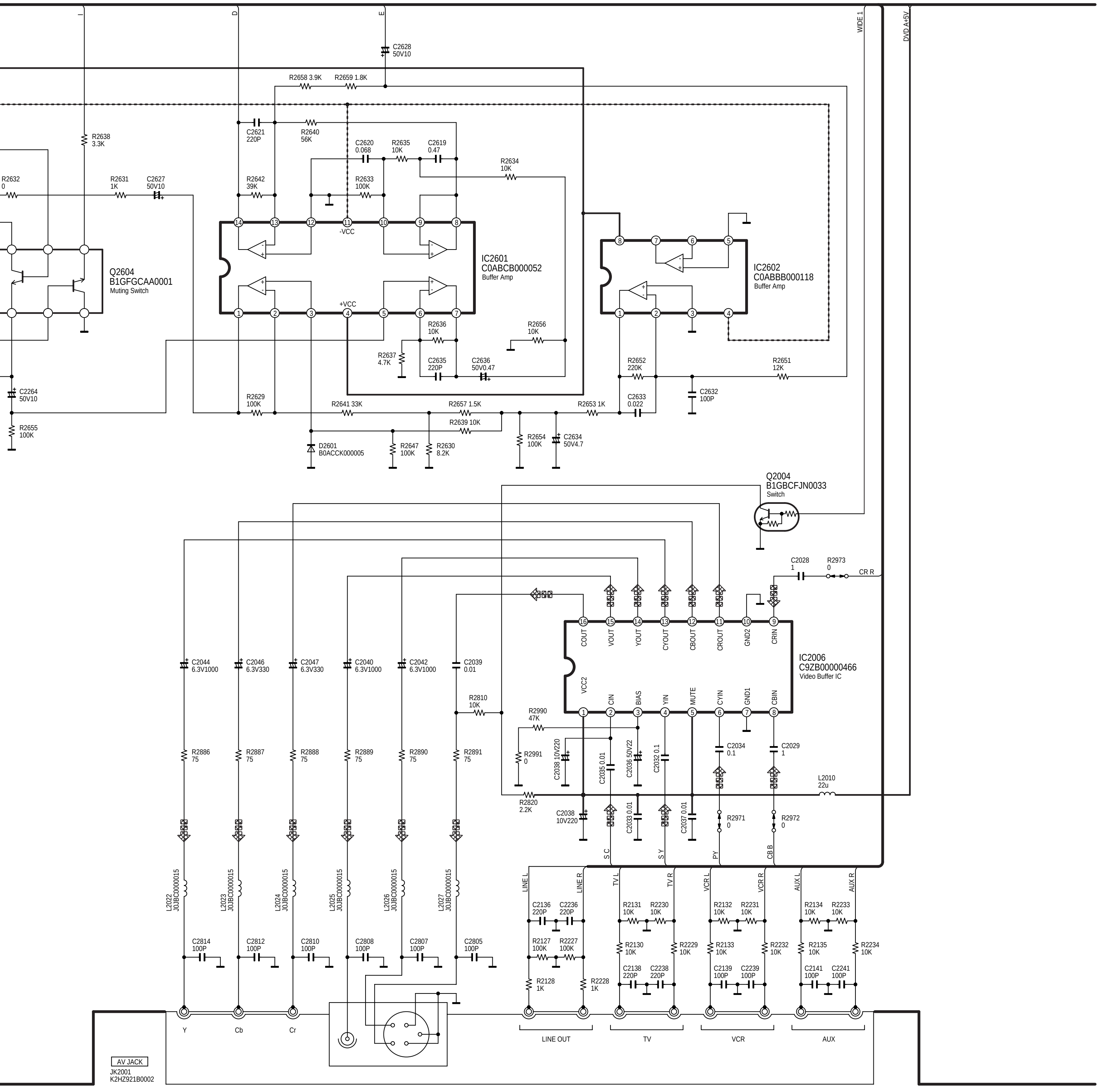
SA-HT930GC/GS MAIN CIRCUIT

SCHEMATIC DIAGRAM-6

B MAIN CIRCUIT

:+B SIGNAL LINE :-B SIGNAL LINE :DVD(VIDEO) SIGNAL LINE


F
SURR FC2
R2279 220K
R2181 2.2K
Q2106 B1GFGCAA0001 Freq.Limiter
R2179 220K
G
R2281 2.2K
R2323 1.8K
Q2305 B1GDCFGA0018 Freq.Limiter Control
R2333 56K
R2325 27K
C2312 50V4.7
B
R2328 1K
R2430 12K
R2428 1K
Q2302 B1GFGCAA0001 Freq.Limiter
A
R2330 12K
SS CLK
SS DAT
HB MUTE
HB LVL
R2644 27K
C2631 50V4.7
R2645 56K
Q2605 B1GDCFGA0018 Muting Control
R2646 1.8K
R2649 2.2K
R2632 0
R263 3.3K
R2648 2.2K
R2626 56K
R2628 27K
C2629 50V4.7
Q2603 B1GDCFGA0018 Level Control
R2627 1.8K
R2643 100K
C2264 50V10
R2655 100K
C2857 10V2.2
C2858 10V2.2
EXT L
EXT R
SS C
C2522 1
C2320 0.12
IC2014 C1BB00000979 Analog Super Surround
20 DGND
19 CLOCK
18 DATA
17 VEE
16 VCC
15 LOUT
14 ROUT
13 COUT
12 SOUT
11 AGND
1 L IN
2 LF
3 MICIN
4 RF
5 RIN
6 LCIN
7 RCIN
8 LSIN
9 RSIN
10 SF
R2129 12K
C2130 0.15
C2131 3300P
C2128 10V2.2
C2228 0.15
R2235 12K
C2229 16V10
C2232 3300P
C2511 50V1
C2521 50V1
C2210 0.022
C2310 0.022
C2211 0.082
SS L
SS R
C2801 100P
C2803 100P
C2137 0.1
C2237 0.1
C2140 680P
C2240 680P
R2878 1
R2879 1
R2880 1
R2881 1
R2882 1
R2883 1
R2884 1
R2885 1
23
24
25
26
27
28


I
D
E
C2628 50V10
WIDE 1
DVD A+5V
R2658 3.9K
R2659 1.8K
C2621 220P
R2640 56K
R2638 3.3K
C2620 0.068
R2635 10K
C2619 0.47
R2634 10K
R2632 0
R2631 1K
C2627 50V10
R2642 39K
R2633 100K
-VCC
+VCC
Q2604
B1GFGCAA0001
Muting Switch
IC2601
C0ABCB000052
Buffer Amp
IC2602
C0ABBB000118
Buffer Amp
R2636 10K
R2656 10K
R2637 4.7K
C2635 220P
C2636 50V0.47
R2652 220K
R2651 12K
C2264 50V10
C2633 0.022
C2632 100P
R2629 100K
R2641 33K
R2657 1.5K
R2653 1K
R2639 10K
R2655 100K
D2601
B0ACCK000005
R2647 100K
R2630 8.2K
R2654 100K
C2634 50V4.7
Q2004
B1GBCFJN0033
Switch
C2028 1
R2973 0
CR R
IC2006
C9ZB00000466
Video Buffer IC
COUT
VOUT
YOUT
CYOUT
CBOUT
CROUT
GND2
CRIN
VCC2
CIN
BIAS
YIN
MUTE
CYIN
GND1
CBIN
C2044 6.3V1000
C2046 6.3V330
C2047 6.3V330
C2040 6.3V1000
C2042 6.3V1000
C2039 0.01
R2810 10K
R2990 47K
R2991 0
C2038 10V220
C2035 0.01
C2036 50V22
C2032 0.1
C2034 0.1
C2029 1
R2886 75
R2887 75
R2888 75
R2889 75
R2890 75
R2891 75
L2010 22u
R2820 2.2K
C2038 10V220
C2033 0.01
C2037 0.01
R2971 0
R2972 0
S C
S Y
PY
CB B
L2022 J0JBC0000015
L2023 J0JBC0000015
L2024 J0JBC0000015
L2025 J0JBC0000015
L2026 J0JBC0000015
L2027 J0JBC0000015
LINE L
LINE R
TV L
TV R
VCR L
VCR R
AUX L
AUX R
C2136 220P
C2236 220P
R2131 10K
R2230 10K
R2132 10K
R2231 10K
R2134 10K
R2233 10K
C2814 100P
C2812 100P
C2810 100P
C2808 100P
C2807 100P
C2805 100P
R2127 100K
R2227 100K
R2130 10K
R2229 10K
R2133 10K
R2232 10K
R2135 10K
R2234 10K
C2138 220P
C2238 220P
C2139 100P
C2239 100P
C2141 100P
C2241 100P
R2128 1K
R2228 1K
Y
Cb
Cr
LINE OUT
TV
VCR
AUX
AV JACK
JK2001
K2HZ921B0002

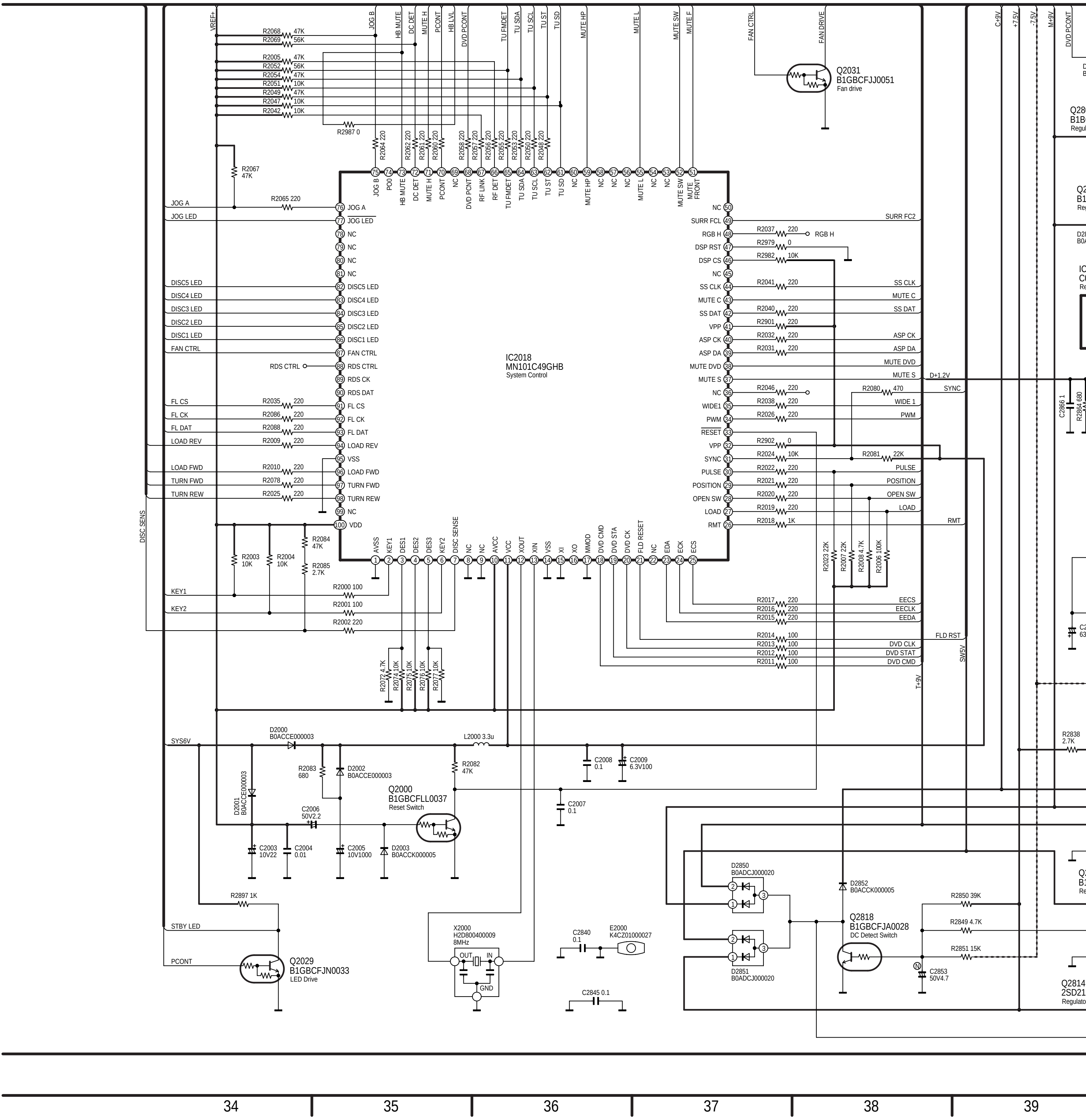
SA-HT930GC/GS MAIN CIRCUIT

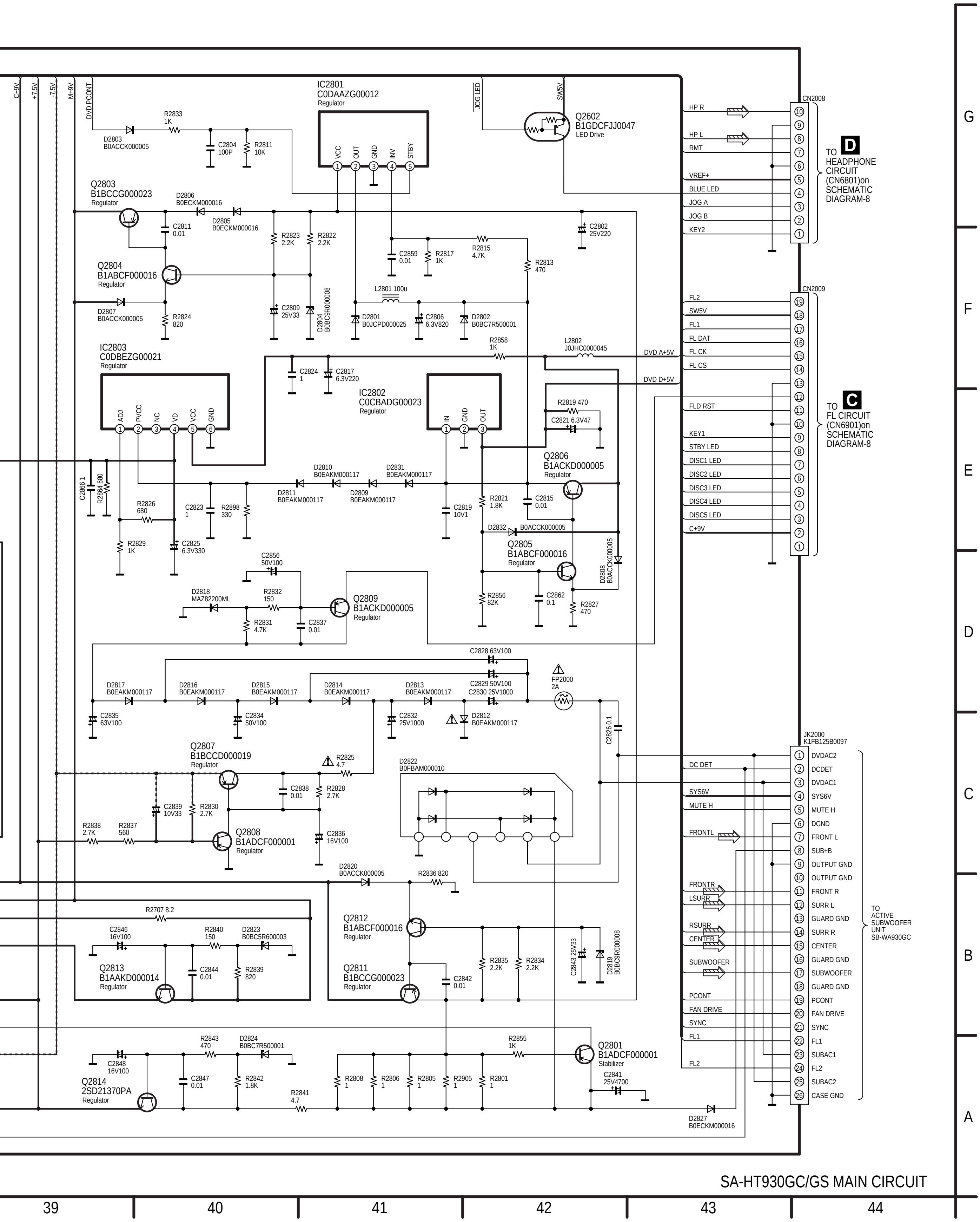
28 29 30 31 32 33

SCHEMATIC DIAGRAM-7

B MAIN CIRCUIT

:+B SIGNAL LINE :-B SIGNAL LINE :MAIN SIGNAL LINE

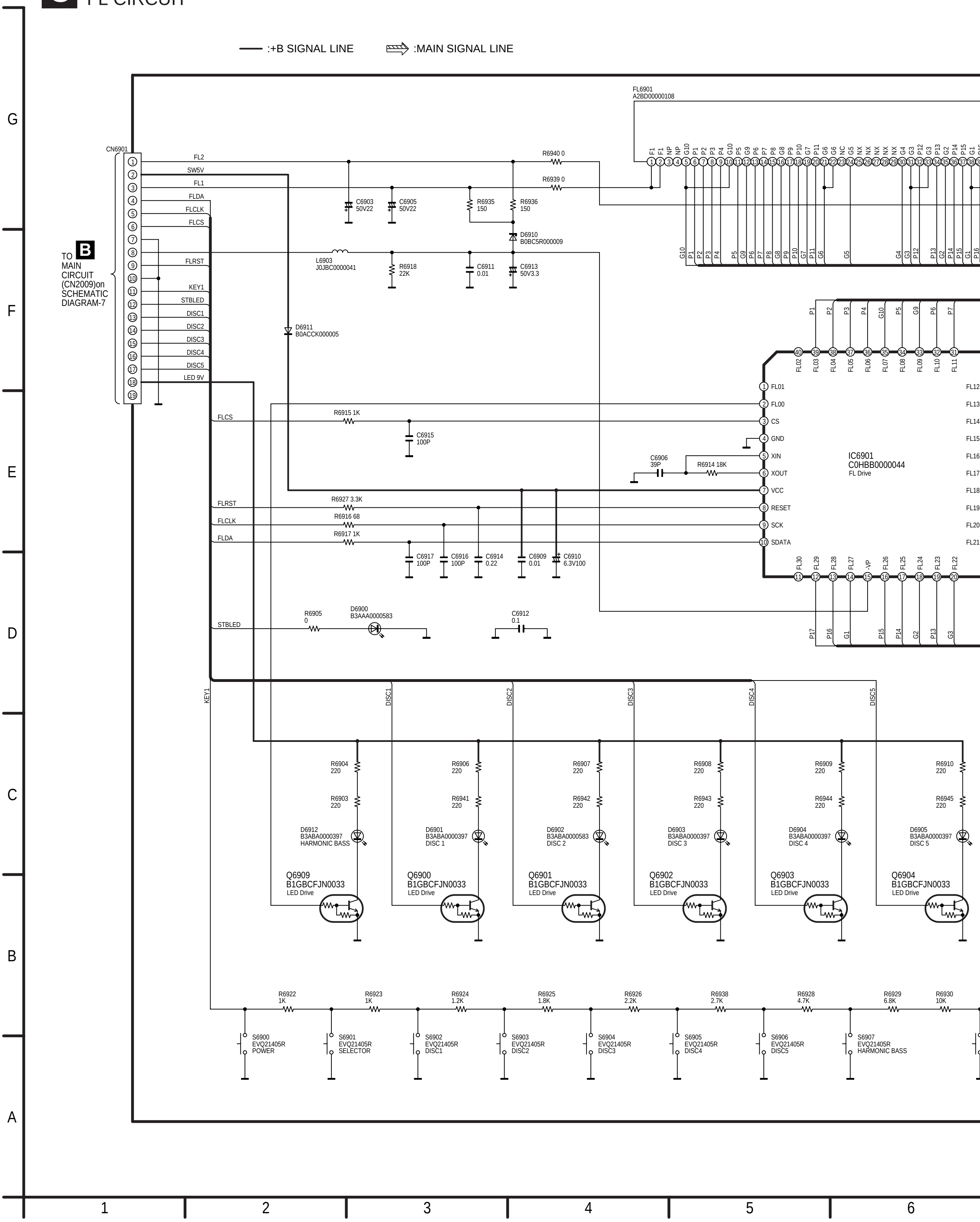

IC2018
MN101C49GHB
System Control
Q2031
B1GBCFJJ0051
Fan drive
Q2000
B1GBCFLL0037
Reset Switch
Q2029
B1GBCFJN0033
LED Drive
Q2818
B1GBCFJA0028
DC Detect Switch
D2000
B0ACCE000003
D2001
B0ACCE000003
D2002
B0ACCE000003
D2003
B0ACCK000005
D2850
B0ADCJ000020
D2851
B0ADCJ000020
D2852
B0ACCK000005
X2000
H2D800400009
8MHz
E2000
K4CZ01000027
L2000 3.3u
VREF+
JOG B
HB MUTE
DC DET
MUTE H
PCONT
HB LVL
DVD PCONT
TU FMDET
TU SDA
TU SCL
TU ST
TU SD
MUTE HP
MUTE L
MUTE SW
MUTE F
FAN CTRL
FAN DRIVE
C+9V
+7.5V
-7.5V
M+9V
DVD PCONT
JOG A
JOG LED
DISC5 LED
DISC4 LED
DISC3 LED
DISC2 LED
DISC1 LED
FAN CTRL
RDS CTRL
FL CS
FL CK
FL DAT
LOAD REV
LOAD FWD
TURN FWD
TURN REW
DISC SENS
KEY1
KEY2
SYS6V
STBY LED
PCONT
SURR FC2
RGB H
SS CLK
MUTE C
SS DAT
ASP CK
ASP DA
MUTE DVD
MUTE S
D+1.2V
SYNC
WIDE 1
PWM
PULSE
POSITION
OPEN SW
LOAD
RMT
EECS
EECLK
EEDA
FLD RST
DVD CLK
DVD STAT
DVD CMD
SW5V
T+9V
R2068 47K
R2069 56K
R2005 47K
R2052 56K
R2054 47K
R2051 10K
R2049 47K
R2047 10K
R2042 10K
R2987 0
R2067 47K
R2065 220
R2064 220
R2062 220
R2061 220
R2060 220
R2058 220
R2057 220
R2056 220
R2055 220
R2053 220
R2050 220
R2048 220
R2035 220
R2086 220
R2088 220
R2009 220
R2010 220
R2078 220
R2025 220
R2003 10K
R2004 10K
R2084 47K
R2085 2.7K
R2000 100
R2001 100
R2002 220
R2072 4.7K
R2074 10K
R2075 10K
R2076 10K
R2077 10K
R2037 220
R2979 0
R2982 10K
R2041 220
R2040 220
R2901 220
R2032 220
R2031 220
R2046 220
R2038 220
R2026 220
R2080 470
R2902 0
R2024 10K
R2081 22K
R2022 220
R2021 220
R2020 220
R2019 220
R2018 1K
R2023 22K
R2007 22K
R2008 4.7K
R2006 100K
R2017 220
R2016 220
R2015 220
R2014 100
R2013 100
R2012 100
R2011 100
R2083 680
R2082 47K
R2897 1K
R2850 39K
R2849 4.7K
R2851 15K
R2838 2.7K
R2864 680
C2866 1
C2008 0.1
C2009 6.3V100
C2007 0.1
C2006 50V2.2
C2003 10V22
C2004 0.01
C2005 10V1000
C2840 0.1
C2845 0.1
C2853 50V4.7
Q2814 2SD21
Regulato
OUT
IN
GND
34
35
36
37
38
39

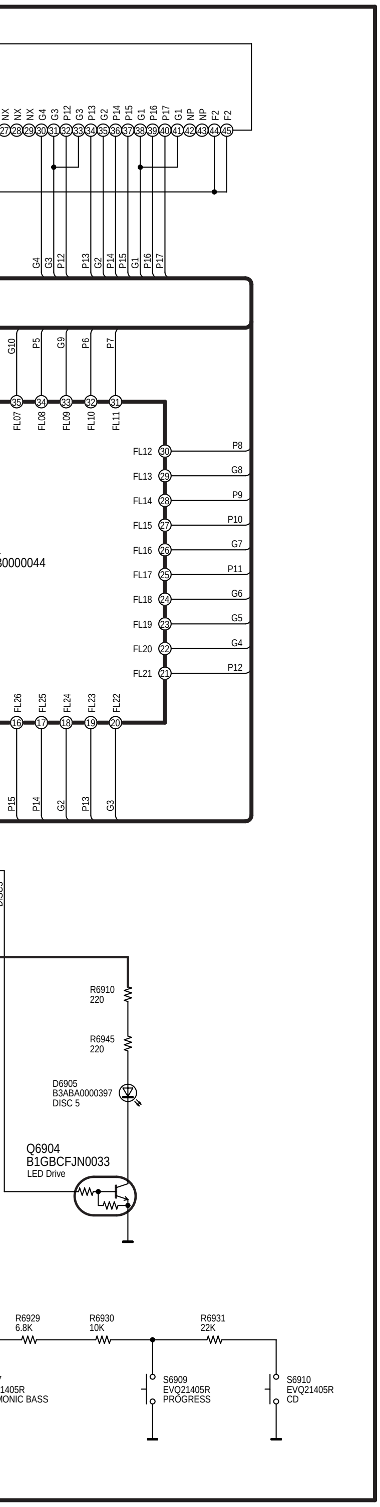

C+9V
+7.5V
-7.5V
M+9V
DVD PCONT
IC2801
C0DAAZG00012
Regulator
VCC
OUT
GND
INV
STBY
JOG LED
SW5V
Q2602
B1GDCFJJ0047
LED Drive
R2833
1K
D2803
B0ACCK000005
C2804
100P
R2811
10K
Q2803
B1BCCG000023
Regulator
D2806
B0ECKM000016
D2805
B0ECKM000016
C2811
0.01
R2823
2.2K
R2822
2.2K
C2859
0.01
R2817
1K
R2815
4.7K
R2813
470
C2802
25V220
Q2804
B1ABCF000016
Regulator
D2807
B0ACCK000005
R2824
820
C2809
25V33
D2804
B0BC9R000008
L2801 100u
D2801
B0JCPD000025
C2806
6.3V820
D2802
B0BC7R500001
R2858
1K
L2802
J0JHC0000045
DVD A+5V
DVD D+5V
IC2803
C0DBEZG00021
Regulator
ADJ
PVCC
NC
VD
VCC
GND
C2824
1
C2817
6.3V220
IC2802
C0CBADG00023
Regulator
IN
GND
OUT
R2819 470
C2821 6.3V47
Q2806
B1ACKD000005
Regulator
C2866 1
R2864 680
R2826
680
D2810
B0EAKM000117
D2831
B0EAKM000117
D2811
B0EAKM000117
D2809
B0EAKM000117
C2823
1
R2898
330
C2819
10V1
R2821
1.8K
C2815
0.01
D2832
B0ACCK000005
R2829
1K
C2825
6.3V330
Q2805
B1ABCF000016
Regulator
D2808
B0ACCK000005
C2856
50V100
D2818
MAZ82200ML
R2832
150
Q2809
B1ACKD000005
Regulator
R2856
82K
C2862
0.1
R2827
470
R2831
4.7K
C2837
0.01
C2828 63V100
D2817
B0EAKM000117
D2816
B0EAKM000117
D2815
B0EAKM000117
D2814
B0EAKM000117
D2813
B0EAKM000117
C2829 50V100
C2830 25V1000
FP2000
2A
C2835
63V100
C2834
50V100
C2832
25V1000
D2812
B0EAKM000117
C2826 0.1
Q2807
B1BCCD000019
Regulator
R2825
4.7
D2822
B0FBAM000010
C2838
0.01
R2828
2.7K
C2839
10V33
R2830
2.7K
R2838
2.7K
R2837
560
Q2808
B1ADCF000001
Regulator
C2836
16V100
D2820
B0ACCK000005
R2836 820
R2707 8.2
C2846
16V100
R2840
150
D2823
B0BC5R600003
Q2812
B1ABCF000016
Regulator
C2843 25V33
D2819
B0BC9R000008
Q2813
B1AAKD000014
Regulator
C2844
0.01
R2839
820
R2835
2.2K
R2834
2.2K
Q2811
B1BCCG000023
Regulator
C2842
0.01
R2843
470
D2824
B0BC7R500001
R2855
1K
Q2801
B1ADCF000001
Stabilizer
C2848
16V100
Q2814
2SD21370PA
Regulator
C2847
0.01
R2842
1.8K
R2841
4.7
R2808
1
R2806
1
R2805
1
R2905
1
R2801
1
C2841
25V4700
D2827
B0ECKM000016
CN2008
HP R
HP L
RMT
VREF+
BLUE LED
JOG A
JOG B
KEY2
TO D HEADPHONE CIRCUIT (CN6801)on SCHEMATIC DIAGRAM-8
CN2009
FL2
SW5V
FL1
FL DAT
FL CK
FL CS
FLD RST
KEY1
STBY LED
DISC1 LED
DISC2 LED
DISC3 LED
DISC4 LED
DISC5 LED
C+9V
TO C FL CIRCUIT (CN6901)on SCHEMATIC DIAGRAM-8
JK2000
K1FB125B0097
DC DET
SYS6V
MUTE H
FRONTL
FRONTR
LSURR
RSURR
CENTER
SUBWOOFER
PCONT
FAN DRIVE
SYNC
FL1
FL2
① DVDAC2
② DCDET
③ DVDAC1
④ SYS6V
⑤ MUTE H
⑥ DGND
⑦ FRONT L
⑧ SUB+B
⑨ OUTPUT GND
⑩ OUTPUT GND
⑪ FRONT R
⑫ SURR L
⑬ GUARD GND
⑭ SURR R
⑮ CENTER
⑯ GUARD GND
⑰ SUBWOOFER
⑱ GUARD GND
⑲ PCONT
⑳ FAN DRIVE
㉑ SYNC
㉒ FL1
㉓ SUBAC1
㉔ FL2
㉕ SUBAC2
㉖ CASE GND
TO ACTIVE SUBWOOFER UNIT SB-WA930GC
G
F
E
D
C
B
A
39
40
41
42
43
44

SA-HT930GC/GS MAIN CIRCUIT

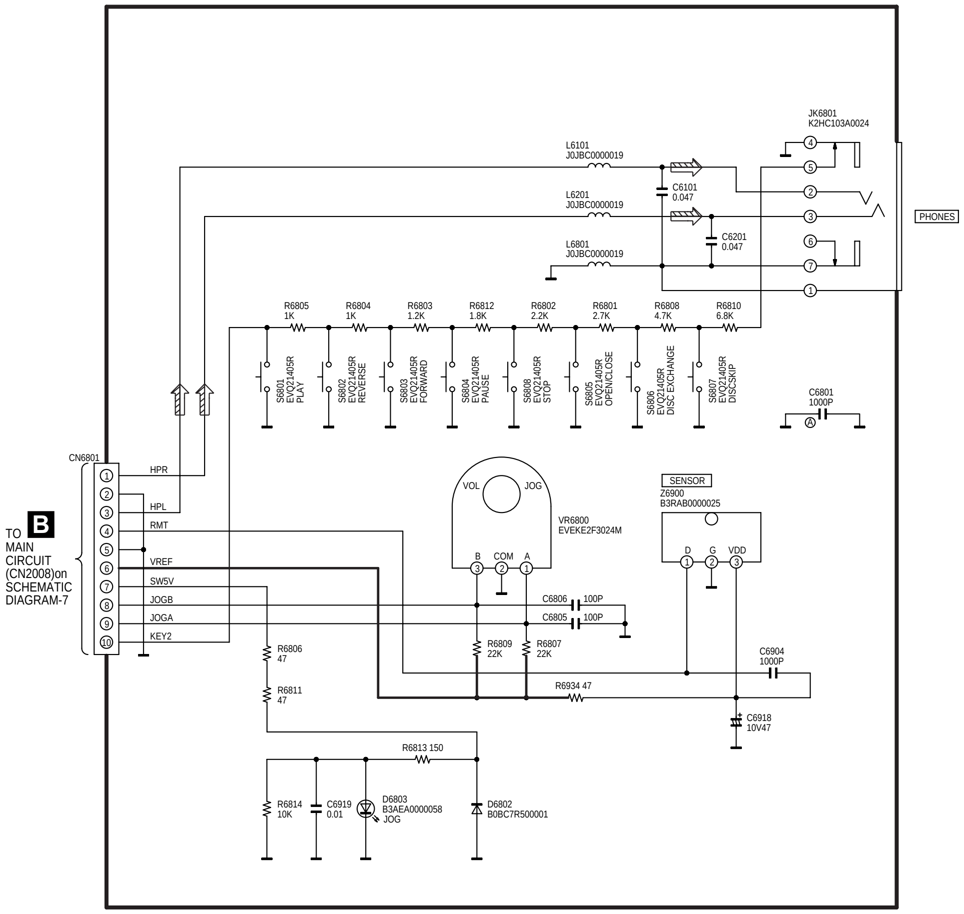
SCHEMATIC DIAGRAM-8

C FL CIRCUIT


:+B SIGNAL LINE
:MAIN SIGNAL LINE
FL6901
A2BD00000108
CN6901
FL2
SW5V
FL1
FLDA
FLCLK
FLCS
FLRST
KEY1
STBLED
DISC1
DISC2
DISC3
DISC4
DISC5
LED 9V
TO B MAIN CIRCUIT (CN2009)on SCHEMATIC DIAGRAM-7
R6940 0
R6939 0
C6903 50V22
C6905 50V22
R6935 150
R6936 150
D6910 B0BC5R000009
L6903 J0JBC0000041
R6918 22K
C6911 0.01
C6913 50V3.3
D6911 B0ACCK000005
R6915 1K
C6915 100P
C6906 39P
R6914 18K
IC6901
C0HBB0000044
FL Drive
FL01
FL00
CS
GND
XIN
XOUT
VCC
RESET
SCK
SDATA
FL12
FL13
FL14
FL15
FL16
FL17
FL18
FL19
FL20
FL21
R6927 3.3K
R6916 68
R6917 1K
C6917 100P
C6916 100P
C6914 0.22
C6909 0.01
C6910 6.3V100
R6905 0
D6900 B3AAA0000583
C6912 0.1
R6904 220
R6903 220
D6912 B3ABA0000397 HARMONIC BASS
Q6909 B1GBCFJN0033 LED Drive
R6906 220
R6941 220
D6901 B3ABA0000397 DISC 1
Q6900 B1GBCFJN0033 LED Drive
R6907 220
R6942 220
D6902 B3ABA0000583 DISC 2
Q6901 B1GBCFJN0033 LED Drive
R6908 220
R6943 220
D6903 B3ABA0000397 DISC 3
Q6902 B1GBCFJN0033 LED Drive
R6909 220
R6944 220
D6904 B3ABA0000397 DISC 4
Q6903 B1GBCFJN0033 LED Drive
R6910 220
R6945 220
D6905 B3ABA0000397 DISC 5
Q6904 B1GBCFJN0033 LED Drive
R6922 1K
R6923 1K
R6924 1.2K
R6925 1.8K
R6926 2.2K
R6938 2.7K
R6928 4.7K
R6929 6.8K
R6930 10K
S6900 EVQ21405R POWER
S6901 EVQ21405R SELECTOR
S6902 EVQ21405R DISC1
S6903 EVQ21405R DISC2
S6904 EVQ21405R DISC3
S6905 EVQ21405R DISC4
S6906 EVQ21405R DISC5
S6907 EVQ21405R HARMONIC BASS
G
F
E
D
C
B
A
1
2
3
4
5
6

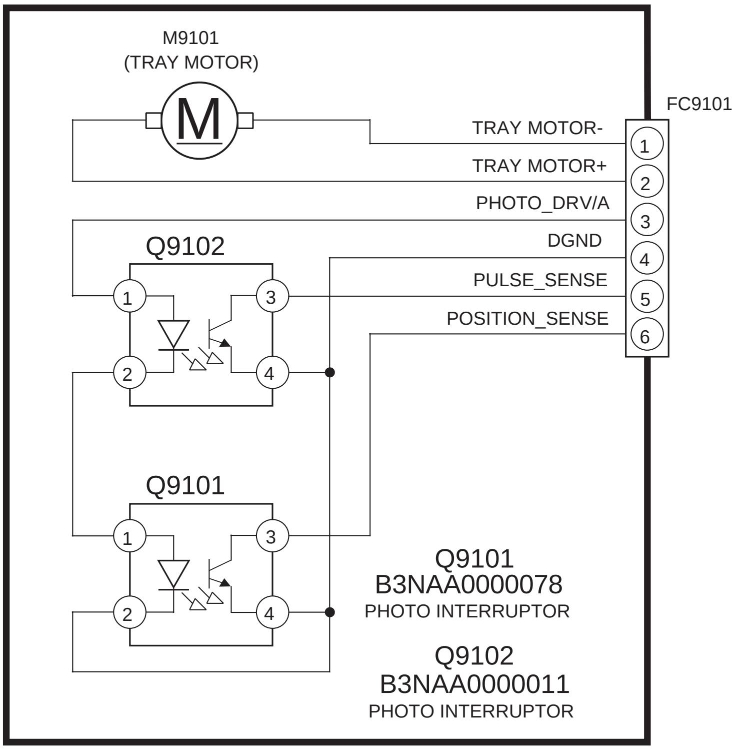

NX NX NX G4 G3 P12 G3 P13 G2 P14 P15 G1 P16 P17 G1 NP NP F2 F2
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45
G4 G3 P12 P13 G2 P14 P15 G1 P16 P17
G10 P5 G9 P6 P7
35 34 33 32 31
FL07 FL08 FL09 FL10 FL11
FL12 30 P8
FL13 29 G8
FL14 28 P9
FL15 27 P10
FL16 26 G7
FL17 25 P11
FL18 24 G6
FL19 23 G5
FL20 22 G4
FL21 21 P12
30000044
FL26 FL25 FL24 FL23 FL22
16 17 18 19 20
P15 P14 G2 P13 G3
R6910
220
R6945
220
D6905
B3ABA0000397
DISC 5
Q6904
B1GBCFJN0033
LED Drive
R6929
6.8K
R6930
10K
R6931
22K
1405R
MONIC BASS
S6909
EVQ21405R
PROGRESS
S6910
EVQ21405R
CD

D HEADPHONE CIRCUIT

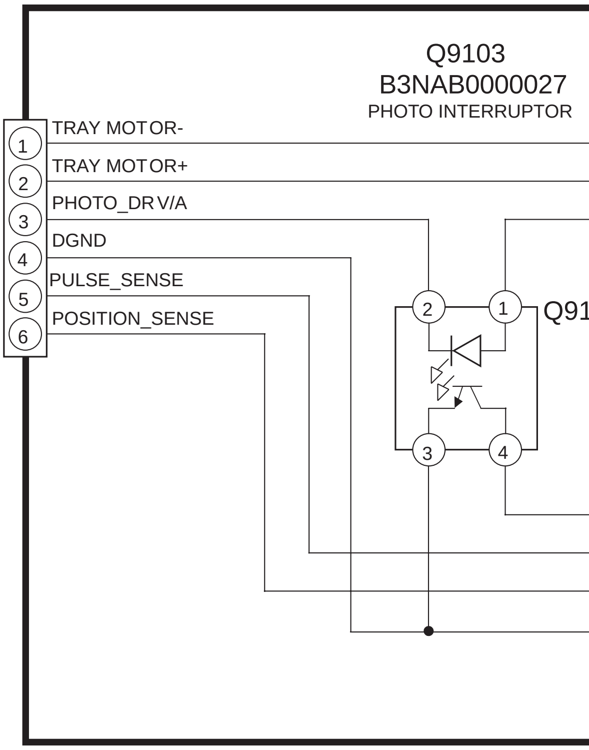

JK6801
K2HC103A0024
L6101
J0JBC0000019
C6101
0.047
L6201
J0JBC0000019
C6201
0.047
L6801
J0JBC0000019
PHONES
R6805
1K
R6804
1K
R6803
1.2K
R6812
1.8K
R6802
2.2K
R6801
2.7K
R6808
4.7K
R6810
6.8K
S6801
EVQ21405R
PLAY
S6802
EVQ21405R
REVERSE
S6803
EVQ21405R
FORWARD
S6804
EVQ21405R
PAUSE
S6808
EVQ21405R
STOP
S6805
EVQ21405R
OPEN/CLOSE
S6806
EVQ21405R
DISC EXCHANGE
S6807
EVQ21405R
DISCSKIP
C6801
1000P
Ⓐ
CN6801
HPR
HPL
RMT
VREF
SW5V
JOGB
JOGA
KEY2
TO B MAIN CIRCUIT (CN2008)on SCHEMATIC DIAGRAM-7
VOL
JOG
VR6800
EVEKE2F3024M
B COM A
SENSOR
Z6900
B3RAB0000025
D G VDD
C6806 100P
C6805 100P
R6809
22K
R6807
22K
C6904
1000P
R6934 47
C6918
10V47
R6806
47
R6811
47
R6813 150
R6814
10K
C6919
0.01
D6803
B3AEA0000058
JOG
D6802
B0BC7R500001

SCHEMATIC DIAGRAM-9

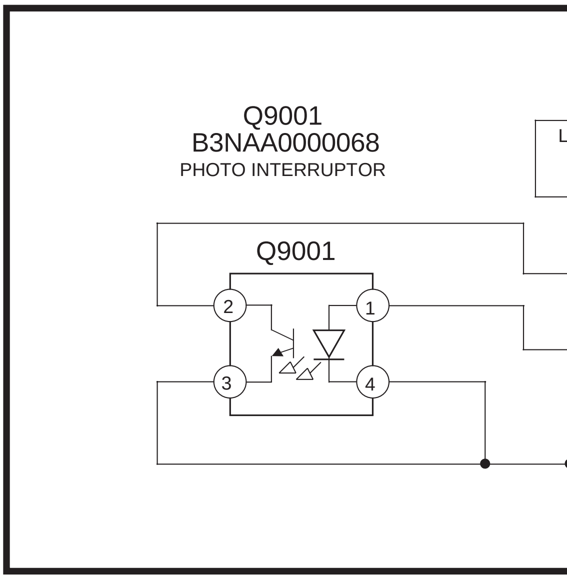
F TRAY MOTOR CIRCUIT

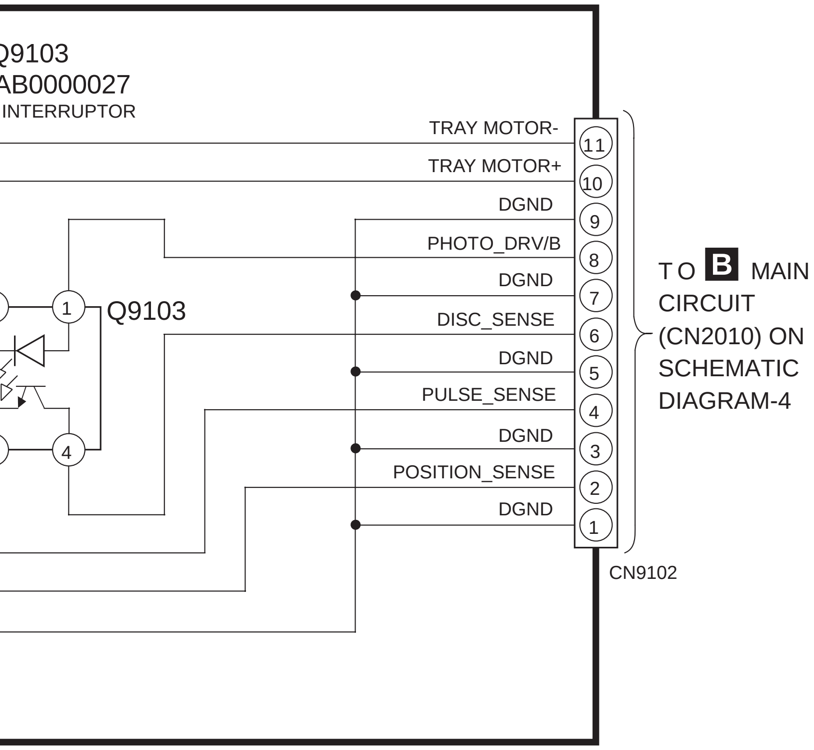

M9101
(TRAY MOTOR)
M
FC9101
TRAY MOTOR-
TRAY MOTOR+
PHOTO_DRV/A
DGND
PULSE_SENSE
POSITION_SENSE
1
2
3
4
5
6
Q9102
Q9101
Q9101
B3NAA0000078
PHOTO INTERRUPTOR
Q9102
B3NAA0000011
PHOTO INTERRUPTOR

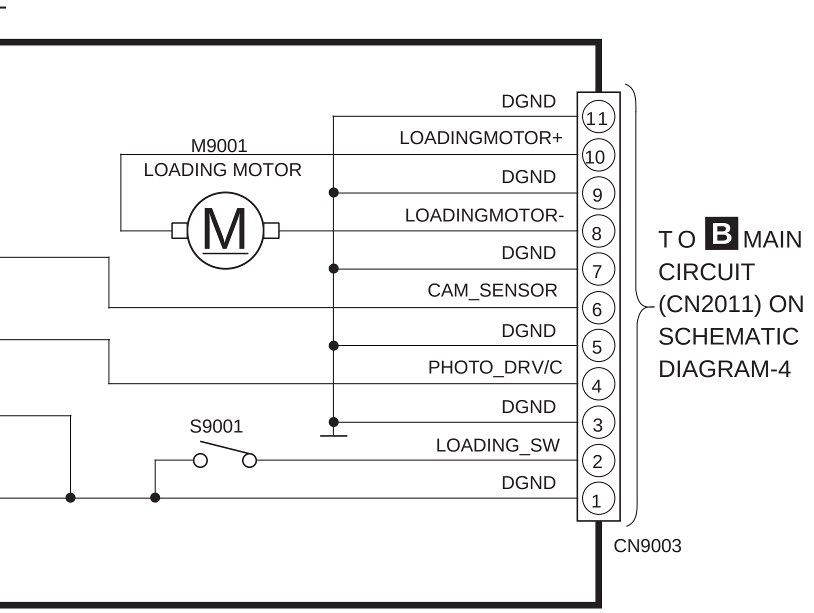
G SENSOR CIRCUIT


Q9103
B3NAB0000027
PHOTO INTERRUPTOR
1
2
3
4
5
6
TRAY MOTOR-
TRAY MOTOR+
PHOTO_DRV/A
DGND
PULSE_SENSE
POSITION_SENSE
Q91

E LOADING MOTOR CIRCUIT

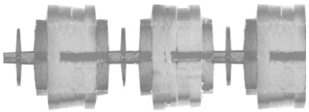

Q9001
B3NAA0000068
PHOTO INTERRUPTOR
Q9001
1
2
3
4
L


Q9103
AB0000027
INTERRUPTOR
TRAY MOTOR-
TRAY MOTOR+
DGND
PHOTO_DRV/B
DGND
DISC_SENSE
DGND
PULSE_SENSE
DGND
POSITION_SENSE
DGND
11
10
9
8
7
6
5
4
3
2
1
1
4
Q9103
CN9102
TO B MAIN
CIRCUIT
(CN2010) ON
SCHEMATIC
DIAGRAM-4


DGND
LOADINGMOTOR+
DGND
LOADINGMOTOR-
DGND
CAM_SENSOR
DGND
PHOTO_DRV/C
DGND
LOADING_SW
DGND
11
10
9
8
7
6
5
4
3
2
1
M9001
LOADING MOTOR
M
S9001
CN9003
TO B MAIN
CIRCUIT
(CN2011) ON
SCHEMATIC
DIAGRAM-4

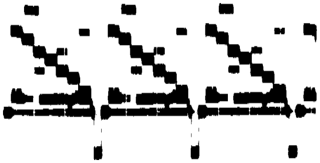
SA-HT930GC/GS LOADING MOTOR/TRAY MOTOR/SENSOR CIRCUIT

WF No. IC2006-2 (PLAY)



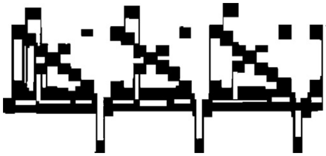
0.8Vp-p(20usec/div)

WF No. IC2006-4 (PLAY)



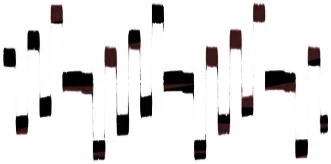
1.1Vp-p(20usec/div)

WF No. IC2006-6 (PLAY)



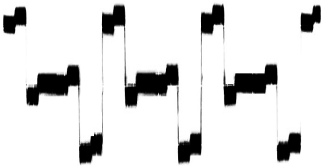
1.1Vp-p(20usec/div)

WF No. IC2006-8 (PLAY)



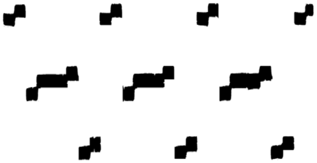
0.6Vp-p(20usec/div)

WF No. IC2006-9 (PLAY)



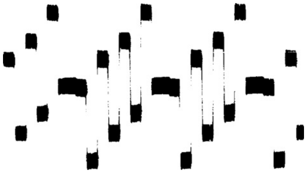
0.6Vp-p(20usec/div)

WF No. IC2006-11 (PLAY)



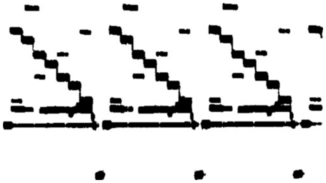
1.0Vp-p(20usec/div)

WF No. IC2006-12 (PLAY)



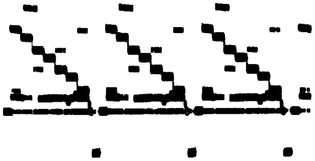
1.0Vp-p(20usec/div)

WF No. IC2006-13 (PLAY)



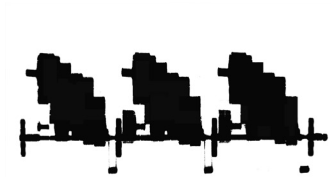
2.1Vp-p(20usec/div)

WF No. IC2006-14 (PLAY)



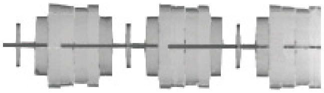
2.1Vp-p(20usec/div)

WF No. IC2006-15 (PLAY)



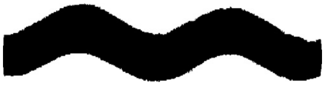
2.1Vp-p(20usec/div)

WF No. IC2006-16 (PLAY)



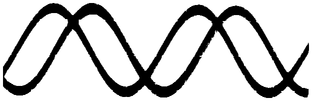
1.2Vp-p(20usec/div)

WF No. IC2011-17 (PLAY)



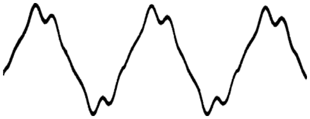
0.03Vp-p(200usec/div)

WF No. IC2011-18 (PLAY)



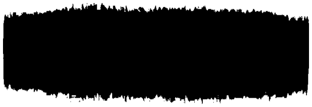
0.13Vp-p(200usec/div)

WF No. IC2011-28 (PLAY)



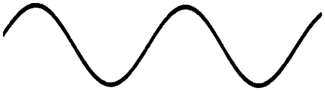
0.8Vp-p(5msec/div)

WF No. IC2011-39 (PLAY)



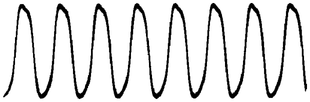
0.1Vp-p(200usec/div)

WF No. IC2013-1 (PLAY)

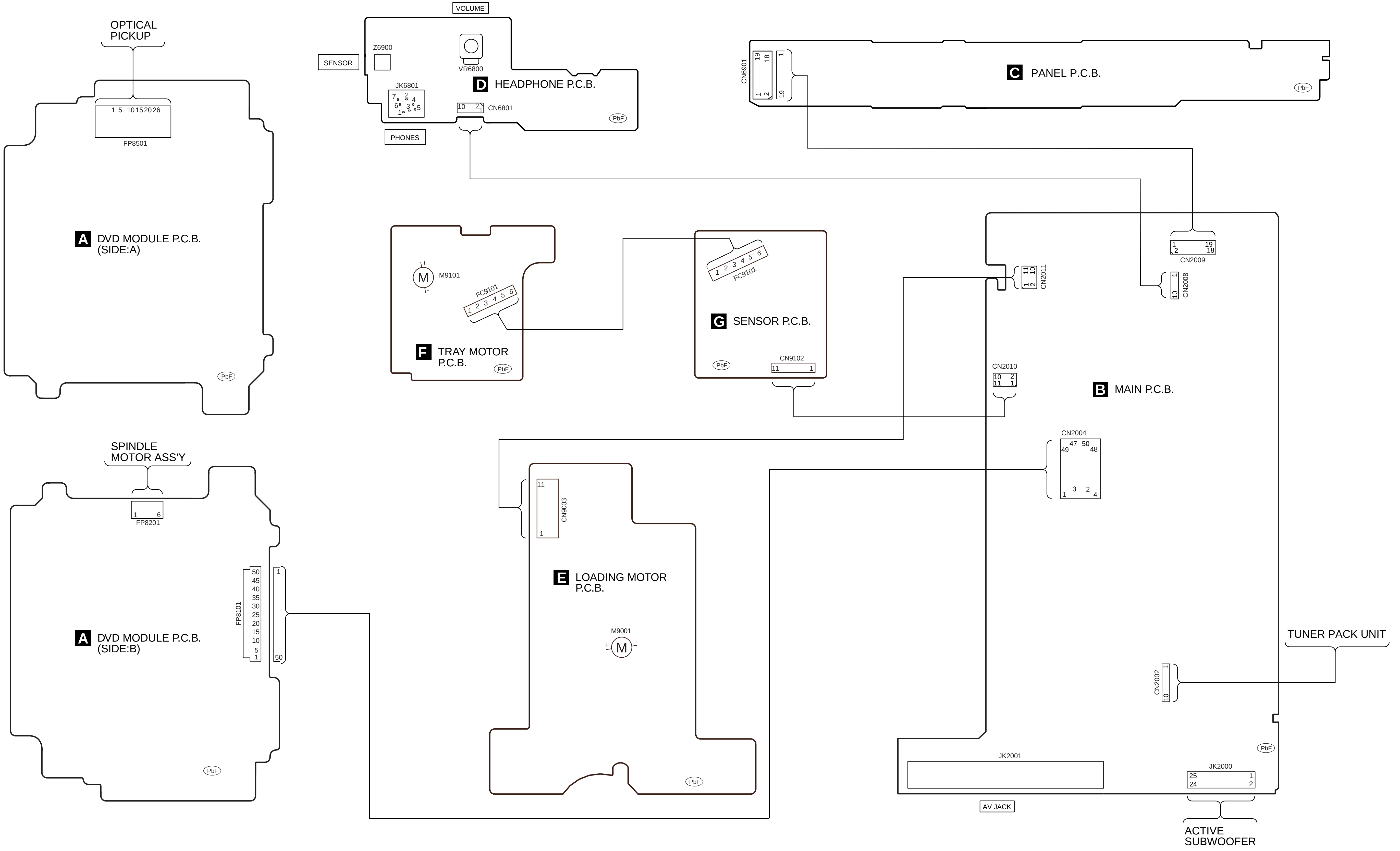


2.2Vp-p(200usec/div)

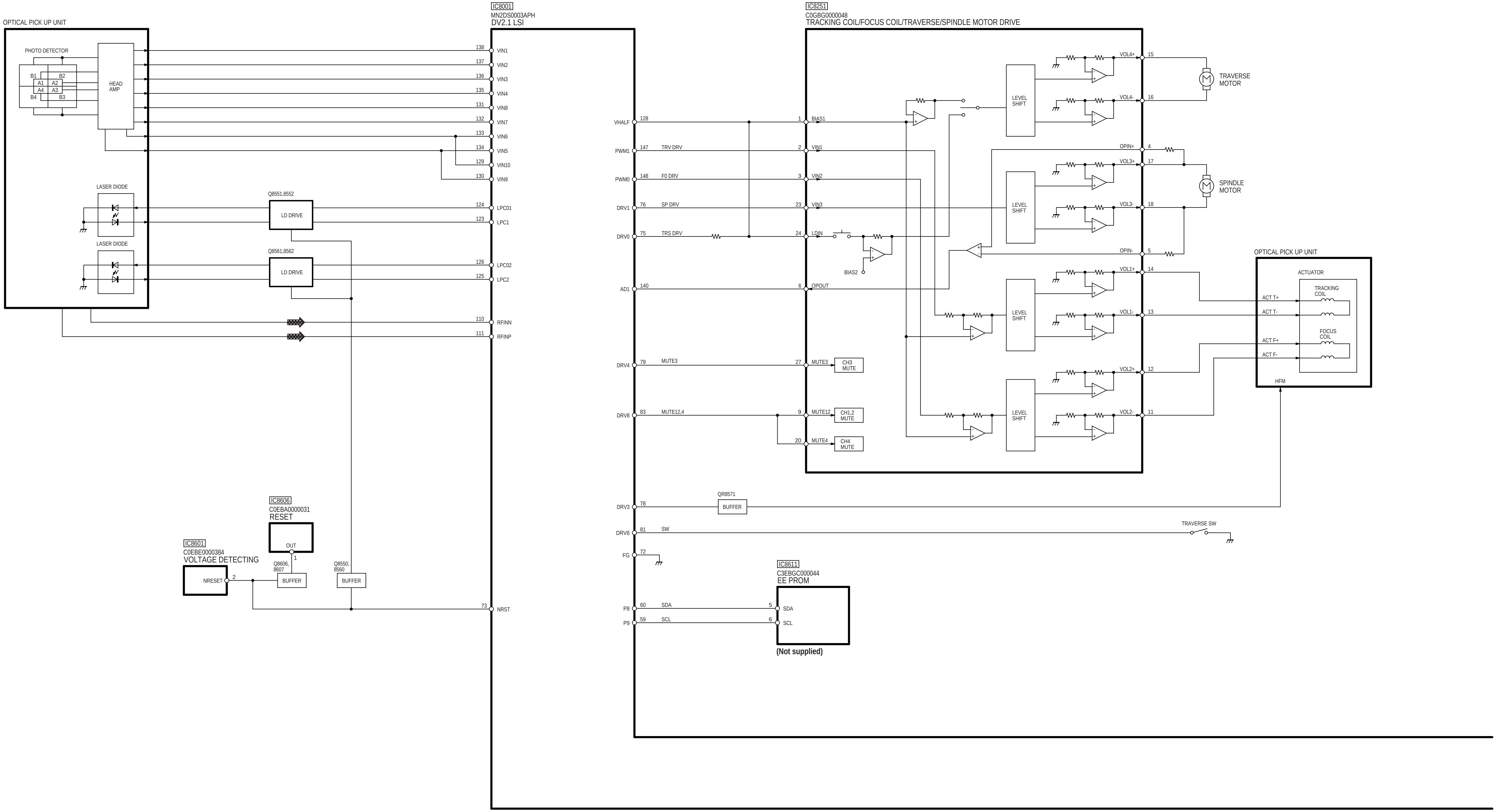
WF No. IC2018-12 (PLAY)



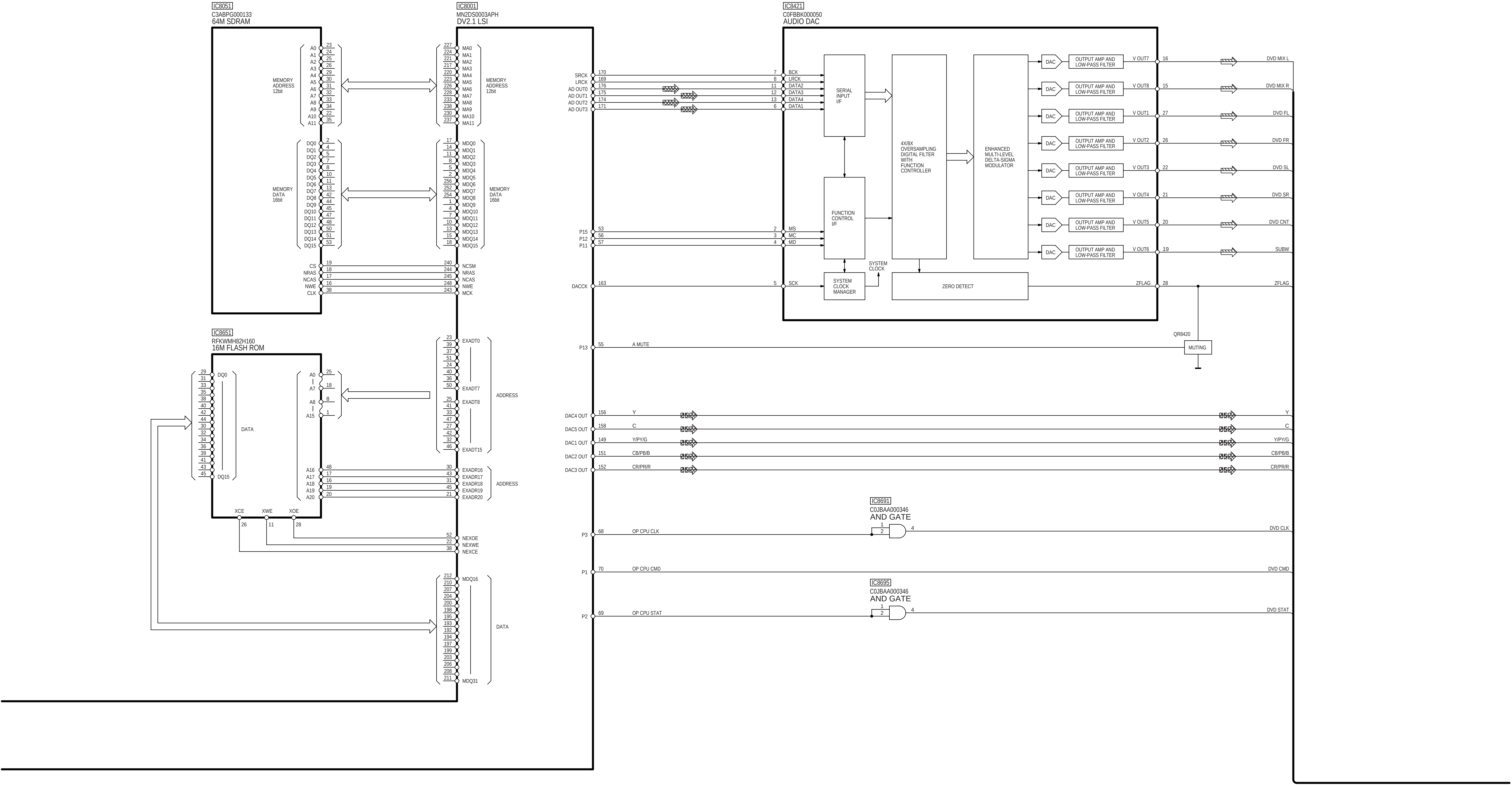
4.5Vp-p(100nsec/div)


OPTICAL PICKUP
FP8501
1 5 10 15 20 26
A DVD MODULE P.C.B. (SIDE:A)
PbF
SPINDLE MOTOR ASS'Y
FP8201
1 6
A DVD MODULE P.C.B. (SIDE:B)
FP8101
50 45 40 35 30 25 20 15 10 5 1
1
50
VOLUME
SENSOR
Z6900
VR6800
D HEADPHONE P.C.B.
JK6801
7 2 4 6 3 5 1
10 2 1
CN6801
PHONES
C PANEL P.C.B.
CN6901
19 18 1 2
1 19
F TRAY MOTOR P.C.B.
M
M9101
FC9101
1 2 3 4 5 6
G SENSOR P.C.B.
CN9102
11 1
B MAIN P.C.B.
CN2009
1 19 2 18
CN2011
11 10 1 2
CN2008
1 10
CN2010
10 2 11 1
CN2004
47 50 49 48 1 3 2 4
E LOADING MOTOR P.C.B.
CN9003
11 1
M9001
+ M -
TUNER PACK UNIT
CN2002
1 10
JK2001
AV JACK
JK2000
25 1 24 2
ACTIVE SUBWOOFER

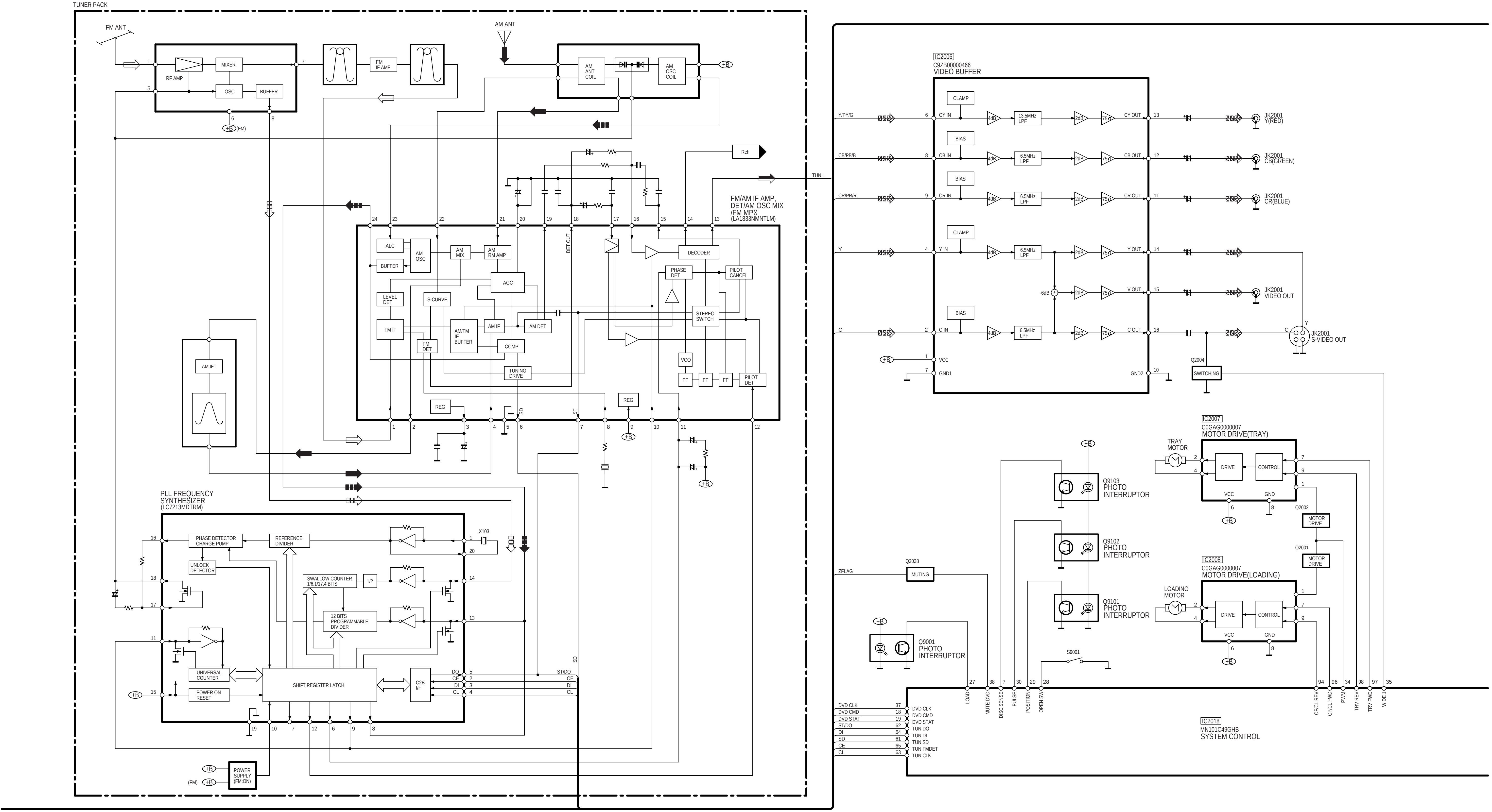
SA-HT930GC/GS WIRING CONNECTION


OPTICAL PICK UP UNIT
PHOTO DETECTOR
B1
B2
A1
A2
A4
A3
B4
B3
HEAD AMP
LASER DIODE
LASER DIODE
IC8001
MN2DS0003APH
DV2.1 LSI
138 VIN1
137 VIN2
136 VIN3
135 VIN4
131 VIN8
132 VIN7
133 VIN6
134 VIN5
129 VIN10
130 VIN9
Q8551,8552
LD DRIVE
124 LPC01
123 LPC1
Q8561,8562
LD DRIVE
126 LPC02
125 LPC2
110 RFINN
111 RFINP
IC8606
C0EBA0000031
RESET
OUT
1
IC8601
C0EBE0000384
VOLTAGE DETECTING
NRESET
2
Q8606, 8607
BUFFER
Q8550, 8560
BUFFER
73 NRST
VHALF 128
PWM1 147 TRV DRV
PWM0 148 F0 DRV
DRV1 76 SP DRV
DRV0 75 TRS DRV
AD1 140
DRV4 79 MUTE3
DRV8 83 MUTE12,4
DRV3 78
QR8571
BUFFER
DRV6 81 SW
FG 72
P8 60 SDA
P9 59 SCL
IC8251
C0GBG0000048
TRACKING COIL/FOCUS COIL/TRAVERSE/SPINDLE MOTOR DRIVE
1 BIAS1
2 VIN1
3 VIN2
23 VIN3
24 LDIN
BIAS2
6 OPOUT
27 MUTE3
CH3 MUTE
9 MUTE12
CH1,2 MUTE
20 MUTE4
CH4 MUTE
LEVEL SHIFT
LEVEL SHIFT
LEVEL SHIFT
LEVEL SHIFT
VOL4+ 15
VOL4- 16
OPIN+ 4
VOL3+ 17
VOL3- 18
OPIN- 5
VOL1+ 14
VOL1- 13
VOL2+ 12
VOL2- 11
TRAVERSE MOTOR
SPINDLE MOTOR
OPTICAL PICK UP UNIT
ACTUATOR
TRACKING COIL
FOCUS COIL
ACT T+
ACT T-
ACT F+
ACT F-
HFM
TRAVERSE SW
IC8611
C3EBGC000044
EE PROM
5 SDA
6 SCL
(Not supplied)

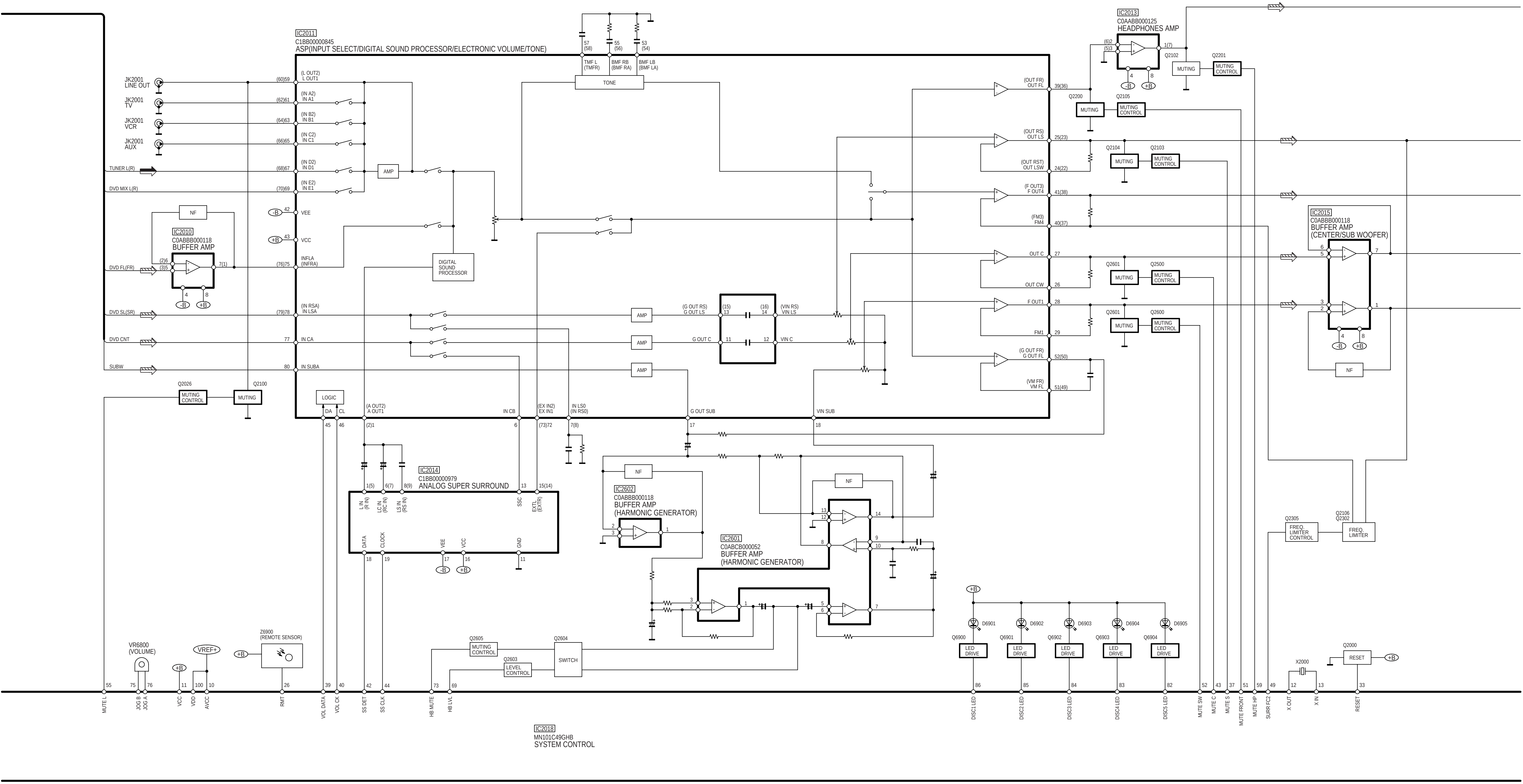
SA-HT930GC/GS BLOCK DIAGRAM


IC8051
C3ABPG000133
64M SDRAM
MEMORY ADDRESS 12bit
MEMORY DATA 16bit
A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11
DQ0 DQ1 DQ2 DQ3 DQ4 DQ5 DQ6 DQ7 DQ8 DQ9 DQ10 DQ11 DQ12 DQ13 DQ14 DQ15
CS NRAS NCAS NWE CLK
IC8001
MN2DS0003APH
DV2.1 LSI
MA0 MA1 MA2 MA3 MA4 MA5 MA6 MA7 MA8 MA9 MA10 MA11
MDQ0 MDQ1 MDQ2 MDQ3 MDQ4 MDQ5 MDQ6 MDQ7 MDQ8 MDQ9 MDQ10 MDQ11 MDQ12 MDQ13 MDQ14 MDQ15
NCSM NRAS NCAS NWE MCK
EXADT0 EXADT7 EXADT8 EXADT15
ADDRESS
EXADR16 EXADR17 EXADR18 EXADR19 EXADR20
ADDRESS
NEXOE NEXWE NEXCE
MDQ16 MDQ31
DATA
IC8651
RFKWMH82H160
16M FLASH ROM
DQ0 DQ15
DATA
A0 A7 A8 A15
A16 A17 A18 A19 A20
XCE XWE XOE
SRCK LRCK AD OUT0 AD OUT1 AD OUT2 AD OUT3
P15 P12 P11
DACCK
P13
A MUTE
DAC4 OUT DAC5 OUT DAC1 OUT DAC2 OUT DAC3 OUT
Y C Y/PY/G CB/PB/B CR/PR/R
P3 OP CPU CLK
P1 OP CPU CMD
P2 OP CPU STAT
IC8421
C0FBBK000050
AUDIO DAC
BCK LRCK DATA2 DATA3 DATA4 DATA1
MS MC MD
SCK
SERIAL INPUT I/F
FUNCTION CONTROL I/F
SYSTEM CLOCK MANAGER
SYSTEM CLOCK
4X/8X OVERSAMPLING DIGITAL FILTER WITH FUNCTION CONTROLLER
ENHANCED MULTI-LEVEL DELTA-SIGMA MODULATOR
DAC
OUTPUT AMP AND LOW-PASS FILTER
V OUT7 V OUT8 V OUT1 V OUT2 V OUT3 V OUT4 V OUT5 V OUT6
ZERO DETECT
ZFLAG
DVD MIX L
DVD MIX R
DVD FL
DVD FR
DVD SL
DVD SR
DVD CNT
SUBW
ZFLAG
QR8420
MUTING
IC8691
C0JBAA000346
AND GATE
IC8695
C0JBAA000346
AND GATE
DVD CLK
DVD CMD
DVD STAT

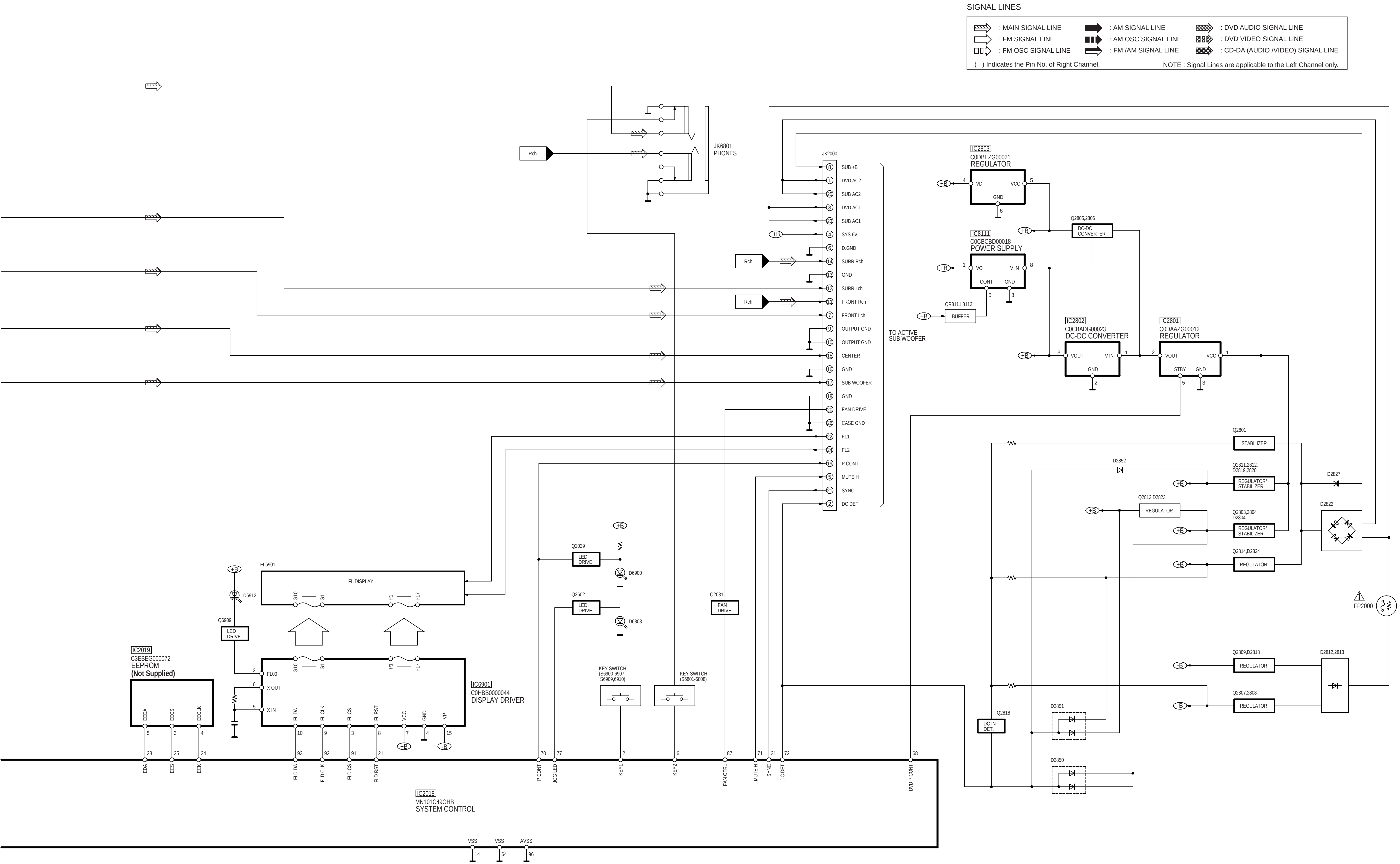
SA-HT930GC/GS BLOCK DIAGRAM


TUNER PACK
FM ANT
RF AMP
MIXER
OSC
BUFFER
+B (FM)
FM IF AMP
AM ANT
AM ANT COIL
AM OSC COIL
+B
Rch
TUN L
FM/AM IF AMP, DET/AM OSC MIX /FM MPX
(LA1833NMNTLM)
ALC
BUFFER
AM OSC
AM MIX
AM RM AMP
AGC
LEVEL DET
S-CURVE
FM IF
FM DET
AM/FM IF BUFFER
AM IF
AM DET
COMP
TUNING DRIVE
DET OUT
DECODER
PHASE DET
PILOT CANCEL
STEREO SWITCH
VCO
FF
PILOT DET
REG
SD
ST
AM IFT
PLL FREQUENCY SYNTHESIZER
(LC7213MDTRM)
PHASE DETECTOR CHARGE PUMP
REFERENCE DIVIDER
UNLOCK DETECTOR
SWALLOW COUNTER 1/6,1/17,4 BITS
1/2
12 BITS PROGRAMMABLE DIVIDER
UNIVERSAL COUNTER
SHIFT REGISTER LATCH
POWER ON RESET
C2B I/F
X103
DO
CE
DI
CL
ST/DO
POWER SUPPLY (FM:ON)
(FM)
IC2006
C9ZB00000466
VIDEO BUFFER
Y/PY/G
CB/PB/B
CR/PR/R
Y
C
CY IN
CB IN
CR IN
Y IN
C IN
CLAMP
BIAS
4dB
13.5MHz LPF
6.5MHz LPF
2dB
75Ω
-6dB
CY OUT
CB OUT
CR OUT
Y OUT
V OUT
C OUT
VCC
GND1
GND2
JK2001 Y(RED)
JK2001 CB(GREEN)
JK2001 CR(BLUE)
JK2001 VIDEO OUT
JK2001 S-VIDEO OUT
Q2004
SWITCHING
IC2007
C0GAG0000007
MOTOR DRIVE(TRAY)
TRAY MOTOR
DRIVE
CONTROL
Q2002
MOTOR DRIVE
Q2001
MOTOR DRIVE
IC2008
C0GAG0000007
MOTOR DRIVE(LOADING)
LOADING MOTOR
Q9103 PHOTO INTERRUPTOR
Q9102 PHOTO INTERRUPTOR
Q9101 PHOTO INTERRUPTOR
Q9001 PHOTO INTERRUPTOR
ZFLAG
Q2028
MUTING
S9001
LOAD
MUTE DVD
DISC SENSE
PULSE
POSITION
OPEN SW
OP/CL REV
OP/CL FWD
PWM
TRV REV
TRV FWD
WIDE 1
DVD CLK
DVD CMD
DVD STAT
ST/DO
DI
SD
CE
CL
TUN DO
TUN DI
TUN SD
TUN FMDET
TUN CLK
IC2018
MN101C49GHB
SYSTEM CONTROL

SA-HT930GC/GS BLOCK DIAGRAM


IC2011
C1BB00000845
ASP(INPUT SELECT/DIGITAL SOUND PROCESSOR/ELECTRONIC VOLUME/TONE)
JK2001 LINE OUT
JK2001 TV
JK2001 VCR
JK2001 AUX
TUNER L(R)
DVD MIX L(R)
DVD FL(FR)
DVD SL(SR)
DVD CNT
SUBW
(L OUT2) L OUT1
(IN A2) IN A1
(IN B2) IN B1
(IN C2) IN C1
(IN D2) IN D1
(IN E2) IN E1
VEE
VCC
INFLA (INFRA)
(IN RSA) IN LSA
IN CA
IN SUBA
AMP
NF
IC2010
C0ABBB000118
BUFFER AMP
-B
+B
57 (58)
55 (56)
53 (54)
TMF L (TMFR)
BMF RB (BMF RA)
BMF LB (BMF LA)
TONE
DIGITAL SOUND PROCESSOR
(G OUT RS) G OUT LS
G OUT C
(VIN RS) VIN LS
VIN C
LOGIC
DA
CL
(A OUT2) A OUT1
IN CB
(EX IN2) EX IN1
IN LS0 (IN RS0)
G OUT SUB
VIN SUB
(OUT FR) OUT FL
(OUT RS) OUT LS
(OUT RST) OUT LSW
(F OUT3) F OUT4
(FM3) FM4
OUT C
OUT CW
F OUT1
FM1
(G OUT FR) G OUT FL
(VM FR) VM FL
IC2013
C0AABB000125
HEADPHONES AMP
Q2102
Q2201
MUTING
MUTING CONTROL
Q2200
Q2105
Q2104
Q2103
Q2601
Q2500
Q2600
IC2015
C0ABBB000118
BUFFER AMP
(CENTER/SUB WOOFER)
Q2026
Q2100
IC2014
C1BB00000979
ANALOG SUPER SURROUND
L IN (R IN)
LC IN (RC IN)
LS IN (RS IN)
SSC
EXTL (EXTR)
DATA
CLOCK
GND
IC2602
C0ABBB000118
BUFFER AMP
(HARMONIC GENERATOR)
IC2601
C0ABCB000052
BUFFER AMP
(HARMONIC GENERATOR)
Q2305
FREQ. LIMITER CONTROL
Q2106
Q2302
FREQ. LIMITER
D6901
D6902
D6903
D6904
D6905
Q6900
Q6901
Q6902
Q6903
Q6904
LED DRIVE
VR6800 (VOLUME)
VREF+
Z6900 (REMOTE SENSOR)
Q2605
Q2604
Q2603
LEVEL CONTROL
SWITCH
X2000
Q2000
RESET
MUTE L
JOG B
JOG A
VCC
VDD
AVCC
RMT
VOL DATA
VOL CK
SS DET
SS CLK
HB MUTE
HB LVL
DISC1 LED
DISC2 LED
DISC3 LED
DISC4 LED
DISC5 LED
MUTE SW
MUTE C
MUTE S
MUTE FRONT
MUTE HP
SURR FC2
X OUT
X IN
RESET
IC2018
MN101C49GHB
SYSTEM CONTROL

SA-HT930GC/GS BLOCK DIAGRAM


SIGNAL LINES
: MAIN SIGNAL LINE
: FM SIGNAL LINE
: FM OSC SIGNAL LINE
: AM SIGNAL LINE
: AM OSC SIGNAL LINE
: FM /AM SIGNAL LINE
: DVD AUDIO SIGNAL LINE
: DVD VIDEO SIGNAL LINE
: CD-DA (AUDIO /VIDEO) SIGNAL LINE
( ) Indicates the Pin No. of Right Channel.
NOTE : Signal Lines are applicable to the Left Channel only.
Rch
JK6801
PHONES
JK2000
SUB +B
DVD AC2
SUB AC2
DVD AC1
SUB AC1
SYS 6V
D.GND
SURR Rch
GND
SURR Lch
FRONT Rch
FRONT Lch
OUTPUT GND
OUTPUT GND
CENTER
GND
SUB WOOFER
GND
FAN DRIVE
CASE GND
FL1
FL2
P CONT
MUTE H
SYNC
DC DET
TO ACTIVE
SUB WOOFER
IC2803
C0DBEZG00021
REGULATOR
VD
VCC
GND
Q2805,2806
DC-DC
CONVERTER
IC8111
C0CBCBD00018
POWER SUPPLY
VO
V IN
CONT
GND
QR8111,8112
BUFFER
IC2802
C0CBADG00023
DC-DC CONVERTER
VOUT
V IN
GND
IC2801
C0DAAZG00012
REGULATOR
VOUT
VCC
STBY
GND
+B
-B
Q2801
STABILIZER
D2852
Q2811,2812,
D2819,2820
REGULATOR/
STABILIZER
D2827
Q2813,D2823
REGULATOR
Q2803,2804
D2804
REGULATOR/
STABILIZER
D2822
Q2814,D2824
REGULATOR
FP2000
Q2809,D2818
REGULATOR
D2812,2813
Q2807,2808
REGULATOR
Q2818
DC IN
DET.
D2851
D2850
Q2029
LED
DRIVE
D6900
Q2602
LED
DRIVE
D6803
Q2031
FAN
DRIVE
KEY SWITCH
(S6900-6907,
S6909,6910)
KEY SWITCH
(S6801-6808)
FL6901
FL DISPLAY
G10
G1
P1
P17
D6912
Q6909
LED
DRIVE
IC2019
C3EBEG000072
EEPROM
(Not Supplied)
EEDA
EECS
EECLK
IC6901
C0HBB0000044
DISPLAY DRIVER
FL00
X OUT
X IN
FL DA
FL CLK
FL CS
FL RST
VCC
GND
-VP
EDA
ECS
ECK
FLD DA
FLD CLK
FLD CS
FLD RST
P CONT
JOG LED
KEY1
KEY2
FAN CTRL
MUTE H
SYNC
DC DET
DVD P CONT
IC2018
MN101C49GHB
SYSTEM CONTROL
VSS
VSS
AVSS
14
64
96

SA-HT930GC/GS BLOCK DIAGRAM

Ref No.	IC6901																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	-26.5	-26.5	3.2	0	1.8	1.8	4.3	4.6	4.5	0.2	-26.5	-26.5	-26.5	-24.0	-27.0	-21.0	-21.0	-23.9	-23.9	-23.9
STANDBY	0	0	0	0	1.0	1.0	2.0	0	0	0	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Ref No.	IC6901																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	-15.7	-23.9	-23.9	-23.9	-26.5	-23.9	-26.5	-26.5	-23.9	-21.8	-18.4	-26.5	-23.9	-23.9	-23.9	-26.5	-15.6	-18.4	-18.4	-26.5
STANDBY	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0	0	0	0	0	0	0	0	0	0	0
Ref No.	Q6900				Q6901				Q6902				Q6903				Q6904			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	0.1	4.5		0	8.0	0		0	8.0	0		0	8.0	0		0	8.0	0	
STANDBY	0	1.7	0		0	2.1	0		0	2.0	0		0	2.0	0		0	1.9	0	
Ref No.	Q6909																			
MODE	E	C	B																	
CD PLAY	0	8.2	0																	
STANDBY	0	1.9	0																	

Loading Motor P.C.B.

Ref No.	Q9001																			
MODE	1	2	3	4																
CD PLAY	1.2	4.5	0	0																
STANDBY	0.2	4.8	0	0																

Tray Motor P.C.B.

Ref No.	Q9101					Q9102														
MODE	1	2	3	4		1	2	3	4											
CD PLAY	1.2	0	4.7	0		2.5	1.2	0.1	0											
STANDBY	0.1	0	4.8	0		0.4	-0.2	4.8	0											

Sensor P.C.B.

Ref No.	Q9103																			
MODE	1	2	3	4																
CD PLAY	3.7	2.5	0	0.2																
STANDBY	0.2	0.4	0	4.7																

Ref No.	IC2006																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
CD PLAY	4.8	2.5	2.1	1.5	4.8	1.5	0	2.0	1.9	0	1.9	0	1.5	1.5	1.5	2.0				
STANDBY	0.1	0	0.1	0	0.1	0	0	0.2	0.2	0	0.1	0.1	0.1	0.1	0.1	0				
Ref No.	IC2007										IC2008									
MODE	1	2	3	4	5	6	7	8	9		1	2	3	4	5	6	7	8	9	
CD PLAY	0	0.3	0	0.3	9.0	9.6	0	0	0		0	0.3	0	0.3	9.0	9.6	0	0	0	
STANDBY	0	0.1	0	0.1	1.3	0.1	0	0	0		0	0.1	0	0.1	1.4	0.1	0	0	0	
Ref No.	IC2010																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	-6.7	0	0	0	6.9												
STANDBY	0.4	0.4	0.1	0.1	0.1	0.4	0.4	0.2												
Ref No.	IC2011																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STANDBY	0	0	0	0.2	0.2	0	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC2011																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	0	0	0	0	0	0	0	0	0	0	0	0	-6.5	2.0	0	0	0	0	0	0
STANDBY	0	0	0	0	0	0	0	0.3	0	0	0	0	0.1	0	0	0	0	0	0	0
Ref No.	IC2011																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	0	-6.7	6.9	0	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STANDBY	0	0.2	0.2	0	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0.2	0.2	0	0
Ref No.	IC2011																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref No.	IC2013																			
MODE	1	2	3	4	5	6	7	8												
CD PLAY	0	0	0	-6.7	0	0	0	6.9												
STANDBY	0.3	0.3	0	0.1	0	0.4	0.4	0.2												
Ref No.	IC2014																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.9	-6.7	0.1	0.1	0
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2	0.2	0.1	0.1	0.1	0
Ref No.	IC2015									IC2019										
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8			
CD PLAY	0	0	0	-6.7	0	0	0	6.9		0	4.8	0	0	0	0	0	0			
STANDBY	0.3	0.3	0	0.1	0	0	0	0.2		0	4.8	0	0	0	0	0	0			
Ref No.	IC2018																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD PLAY	0	4.8	1.5	4.8	2.4	4.8	0.2	0	0	4.8	4.6	2.3	2.3	0	0	4.6	0	3.2	4.0	4.4
STANDBY	0	4.8	1.6	4.8	2.4	4.8	4.7	0	0	4.8	4.7	2.4	2.4	0	0	4.7	0	0	0	2.7
Ref No.	IC2018																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD PLAY	4.6	0	0	0	0	4.7	4.5	4.8	0.1	0.1	2.5	4.6	4.6	4.4	4.5	0.1	4.2	0.1	0.1	0.1
STANDBY	0	0	0	0	0	4.7	4.7	4.8	4.8	4.8	2.6	4.7	4.7	4.4	0.1	0.1	0.1	0.1	0.1	0.1
Ref No.	IC2018																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD PLAY	4.7	0.1	4.2	0.1	4.6	4.8	0	0.1	4.1	0.1	0.1	4.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
STANDBY	4.7	0.1	0.1	0.1	0.1	4.8	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0
Ref No.	IC2018																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD PLAY	3.6	4.7	0.1	4.7	4.7	4.7	4.7	4.6	4.6	4.0	4.6	4.6	4.2	0	4.7	4.7	0.1	0	0	0
STANDBY	3.2	3.0	4.8	4.8	4.8	4.8	0.1	0	0	0	0	0.6	0	0	4.8	4.8	4.7	0	0	0
Ref No.	IC2018																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD PLAY	0	0	4.5	0	0	0	0	0	0	0	3.2	4.4	-	0	0	0	0	0	0	4.8
STANDBY	0	0	0	0	0	0	0	0	0	0	0	0	00	0	0	0	0	0	0	4.8
Ref No.	IC2601																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
CD PLAY	0	0	0	6.9	0	0	0	0	0	0	-6.7	0	0	0						
STANDBY	0	0	0	0.2	0	0	0	0	0	0	0.1	0	0	0						
Ref No.	IC2602									IC2801						IC2802				
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5		1	2	3		
CD PLAY	0	0	0	-6.7	0	0	0	6.9		16.0	6.1	0	1.0	3.6		6.0	0	5.0		
STANDBY	0	0	0	0.2	0	0	0	0.2		0	0	0	0	0.1		0.2	0	0.8		
Ref No.	IC2803																			
MODE	1	2	3	4	5	6														
CD PLAY	0.8	3.0	0	1.4	3.9	0														
STANDBY	0	0	0	0	0.1	0														
Ref No.	Q2000				Q2001				Q2002				Q2004				Q2026			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	0	4.6	0		0	0	4.2		0	0	4.2		0	0.1	4.4		0.1	-4.5	0	
STANDBY	0	4.7	0		0	0	4.3		0	0	4.3		0	0.1	0.1		0.1	0.1	0	
Ref No.	Q2028				Q2029				Q2031				Q2100							
MODE	E	C	B		E	C	B		E	C	B		1	2	3	4	5	6		
CD PLAY	0	0.1	4.0		0	0.1	3.1		0	1.3	0		0	-4.5	0	0	-4.5	0		
STANDBY	0	0.1	0		0	1.8	0		0	1.2	0		0	0.1	0	0	0.1	0		
Ref No.	Q2102								Q2103				Q2104							
MODE	1	2	3	4	5	6			E	C	B		1	2	3	4	5	6		
CD PLAY	0	-4.5	0	0	-4.5	0			1.6	1.6	0		0	0.6	0	0	0.6	0		
STANDBY	0	0.1	0	0	0.1	0			0	0.1	0		0	0.1	0	0	0.1	0		

Ref No.	Q2105				Q2106								Q2200							
MODE	E	C	B		1	2	3	4	5	6			1	2	3	4	5	6		
CD PLAY	0.1	-4.3	0		0	0.6	0	0	0.6	0			0	-4.3	0	0	-4.3	0		
STANDBY	0.1	0.1	0		0	0.1	0	0	0.1	0			0	0.1	0	0	0.1	0		
Ref No.	Q2201				Q2302								Q2305				Q2500			
MODE	E	C	B		1	2	3	4	5	6			E	C	B		E	C	B	
CD PLAY	0.1	-4.6	0		0	0.6	0	0	0.6	0			1.1	1.1	0		2.0	2.0	0	
STANDBY	0	0.1	0		0	0.1	0	0	0.1	0			0.1	0.1	0		0.1	0.1	0	
Ref No.	Q2600				Q2601								Q2602				Q2603			
MODE	E	C	B		1	2	3	4	5	6			E	C	B		E	C	B	
CD PLAY	2.0	2.0	0		0	0.7	0	0	0.7	0			5.0	5.0	0.1		2.0	2.0	0	
STANDBY	0.1	0.1	0		0	0.1	0	0	0.1	0			2.5	0	4.7		0	0.1	0	
Ref No.	Q2604								Q2605				Q2801				Q2803			
MODE	1	2	3	4	5	6			E	C	B		E	C	B		E	C	B	
CD PLAY	0	0.7	0	0	0.7	0			2.0	2.0	0		16.0	-2.9	16.0		14.6	9.6	14.0	
STANDBY	0	0.1	0	0	0.1	0			0	0.1	0		0.4	0.1	0.4		1.3	0.2	1.3	
Ref No.	Q2804				Q2805				Q2806				Q2807				Q2808			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	8.9	14.0	9.5		4.4	5.4	4.9		6.0	5.0	5.4		-6.7	-14.5	-7.3		0	-7.3	0	
STANDBY	0	1.3	0.4		0	0.1	0		0.2	0.1	0		0.1	-0.3	-0.3		0	-0.3	0.1	
Ref No.	Q2809				Q2811				Q2812				Q2813				Q2814			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD PLAY	-27.5	-27.5	-27.5		16.0	9.6	15.5		9.0	15.4	9.5		5.0	9.5	5.6		7.0	15.9	7.5	
STANDBY	0	0	0		0.4	0.2	0.2		0	0.2	0.4		0.2	0.2	0.2		0.2	0.4	0.4	
Ref No.	Q2818																			
MODE	E	C	B																	
CD PLAY	0	4.6	-2.9																	
STANDBY	0	0.6	0.1																	